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THE UNIVERSITY OF ALBERTA

SECONDARY EDUCATION IN THE NETHERLANDS WITH SPECIAL REFERENCE TO VOCATIONAL EDUCATION SINCE 1968

BY

ROBERT WILLIAM HARTOG

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH

IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE

OF MASTER OF EDUCATION

IN VOCATIONAL EDUCATION

DEPARTMENT OF INDUSTRIAL AND VOCATIONAL EDUCATION

EDMONTON, ALBERTA

SPRING, 1976

THE UNIVERSITY OF ALBERTA

FACULTY OF GRADUATE STUDIES AND RESEARCH

The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research, for acceptance, a thesis entitled "Secondary Education in the Netherlands with Special Reference to Vocational Education since 1968" submitted by R. W. Hartog in partial fulfilment of the requirements for the degree of Master of Education.

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Date September 19, 1975

ABSTRACT

Due to strong societal demands for revision of the education system during the decades following the Second World War, the Government of the Netherlands in 1963 passed a new Act on Secondary Education, which became operational at the onset of the 1968 school year.

The new Act on Secondary Education --soon referred to as the "Mammoth Act"-- changed and re-organized the structure and organization of all secondary education in that country. It also affected curricula, teaching methods, streaming of students, evaluating systems, and caused a greater integration between the three divisions of secondary education: academic education; general education; and vocational education.

The Act further brought commercial education and fine-arts education under the aegis of the Ministry of Education and Sciences; previously these types of education had been the responsibility of other Departments of the Federal Government.

The objectives of this study were to determine what changes took place in secondary education and particularly in vocational education in the Netherlands since the new Act on Secondary Education became effective in 1968; to determine the structure and organization of vocational education in the Netherlands after the new Act was adopted; and to determine what vocational education programs of studies are offered in the secondary education schools in the Netherlands since the new Secondary Education Act was adopted.

According to the Dutch Constitution, all education is the responsibility of the Federal Government of the Netherlands. The Ministry of Education and Sciences is the Government body which has all education under its purview.

The Inspection Branch of the Ministry of Education and Sciences is responsible for the quality of all education. This Inspection Branch has several sections, each of which is responsible for a particular avenue of education. For the purpose of inspection of all vocational education, the Inspection Branch has a vocational education section as one of its sections.

There are three main streams of secondary education in the Netherlands. These three main streams are: academic secondary education (offered at the grammar schools); general secondary education (offered in HAVO schools and MAVO schools); and vocational secondary education.

Vocational education is offered at three discrete levels. These three levels of vocational education are: elementary vocational education; intermediate vocational education; and higher vocational education. Of these three levels of vocational education, the first two levels are included in secondary education, whereas the third level --higher vocational education-- is considered to be tertiary education. Each successive level of vocational education offers programs of studies of a more advanced nature than the previous level.

Graduates of a lower level of vocational education may either enter the world of work, or they may continue their education in the next level of vocational education. Graduates of elementary vocation education, if they enter the world of work, generally do this through

the apprenticeship system.

The Dutch apprenticeship system is organized through the Apprenticeship Act, which was last amended in 1968. Since the Ministry of Education and Sciences is not only responsible for all education, but also for the apprenticeship system, close co-operation exists in the Netherlands between vocational education and the apprenticeship system.

Vocational education in the Netherlands offers students a broad choice of programs of studies in a wide range of occupations in: technical education (including nautical education); domestic science education; agricultural education; commerce education; economics and administrative education; nursery school teacher education; social-pedagogical education; and fine-arts education.

ACKNOWLEDGEMENTS

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TABLE OF CONTENTS

		Page
LIST OF CHARTS		xi
Chapter		
I	THE PROBLEM	1
	Introduction	1
	Justification of the Study	1
	Objective of the Study	2
	Definitions of Terms	2
	Limitations	5
	Methodology	6
	Population and Sample	7
	Data Analysis	7
II	HISTORICAL BACKGROUND	9
	Introduction	9
	The Constitution of the Netherlands and Education	12
	Vocational Education in the Past	13
	Events Leading Up to the New Act on Secondary Education	16
	The "Mammoth Act"	17
	Structure and Organization of Vocational Education in the Netherlands	18
	Academic Education	19
	General Education	21
	Intermediate General Education (MAVO)	21
	Higher General Education (HAVO)	22

Chapter Page

Elementary Vocational and Technical Education 23

Intermediate Vocational Education 24

Higher Vocational Education 25

The Ministry of Education and Sciences and the Inspection Branch 25

Observations regarding some Branches of Vocational Education 28

Summary 30

III VOCATIONAL EDUCATION IN SECONDARY SCHOOLS IN THE NETHERLANDS. 33

Introduction 33

Vocational Education Programs Offered in the Netherlands .. 33

Occupational Choices in Vocational Education in the Netherlands 36

Elementary Vocational Education 36

Technical Education and Nautical Education 38

Technical Education 38

Nautical Education 42

Domestic Science Education 43

Agricultural Education 44

Economics and Administrative Education 45

Four Year Programs in Elementary Vocational Education 46

Intermediate Vocational Education 47

Technical Education 47

Nautical Education 49

Domestic Science Education 50

Agricultural Education 54

Economics and Administrative Education 56

Teacher Education 58

Chapter

Page

Social-Pedagogical Education 59

Higher Vocational Education 61

Technical Education and Nautical Education 61

Domestic Science Education 62

Agricultural Education 62

Social-Pedagogical Education 63

Art Education 64

Teacher Education 65

Summary 65

IV DATA COLLECTION AND ANALYSIS 67

Introduction 67

Design of the Interview Schedule 68

Conducting the Interviews 69

Interview Results 70

The Structure of Vocational Education in the Netherlands .. 70

Ministry of Education and Sciences Official 71

Vocational Education Inspectors 73

The Organization of Vocational Education 74

Ministry of Education and Sciences Official 74

Vocational Education Inspectors 75

Counselling and Guidance in Vocational Schools 77

Prestige and Position of Vocational Education 78

Ministry of Education and Sciences Official 79

Administrators and Teachers of Vocational Schools 80

Accountability of Vocational Education 80

Ministry of Education and Sciences Official 81

Chapter

Page

Vocational Education Inspectors 81

Administrators and Teachers of Vocational Schools 82

Summary 82

V BACKGROUND, SUMMARY, A DESCRIPTION OF VOCATIONAL EDUCATION IN THE NETHERLANDS SINCE 1968 84

Background of the Study 84

Summary 84

A Description of Vocational Education in the Netherlands after 1968 86

Establishment of Dutch Schools 87

Financing of Education 88

Elementary Education and Streaming 89

Elementary Vocational Education 89

Intermediate Vocational Education 91

Higher Vocational Education 93

The Prestige and Position of Vocational Education 93

The Apprenticeship System 93

The Ministry of Education and Sciences 94

Dutch Vocational Education Schools 95

Researcher's Observations 95

BIBLIOGRAPHY 97

Books 98

Pamphlets 100

APPENDIXES 101

I. The Interview Schedule 102

II. Programs of Studies Available in Intermediate Technical Schools 134

Chapter

Page

III. Vocational Schools that were visited in the Netherlands 136

CURRICULUM VITAE 138

LIST OF CHARTS

Chart		Page
1	The Structure of Education in the Netherlands	20
2	The Ministry of Education and Sciences, Federal Government Inspection of Education, and the Division of Education into Inspection Branches in the Netherlands	27
3	Sub-division of Vocational Education for Inspection Department Purposes	29
4	Sub-division of Vocational Education in the Netherlands in accordance with the New Secondary Education Act (1968)	35
5	Elementary Technical Schools and the Apprenticeship System in the Netherlands	40

CHAPTER I

THE PROBLEM

Introduction

The Netherlands ratified a new Secondary Education Act in 1963, which became operational on August 1, 1968. This Act started a new page in the history of education in that nation, and brought about changes in the structure of secondary education in the Netherlands. These changes involved approximately 1,500,000 pupils, and affected curricula, guidance systems, evaluation systems, as well as a greater integration between the various sub-divisions of secondary education -- academic, general, and vocational education.

Because of this greater integration of education it was thought to be of value to conduct formalized research into the position, organization and structure of vocational education within the framework of secondary education in the Netherlands, since 1968.

Justification of the Study

The need for a descriptive analysis of vocational education in the secondary schools of the Netherlands was generated from an awareness that such a study may provide researchers in vocational education in Canada and in Alberta in particular with a knowledge base on vocational education in the Netherlands.

Objectives of the Study

The following minor objectives applied to this study:

1. To determine the changes that have taken place in vocational education in the Netherlands since the new Act on Secondary Education became operational in 1968.
2. To determine the structure and organization of vocational education in the Netherlands following 1968 when the Act became effective.
3. To determine what vocational education programs are offered in the secondary schools in the Netherlands, following the implementation of the new Act on Secondary Education in 1968.

Definitions of Terms

The following definitions were found appropriate and were selected for terms that will be used throughout this report.

Secondary Education

The definition for secondary education given in the Summary of the Post Primary Education Act in the Netherlands (1968) was found acceptable for this study. The Summary gives this definition for secondary education:

> Education covering the entire field of that part of Dutch education which lies between primary schools and universities (p.3).

Since the term "Post Primary Education," used frequently by the Dutch, is relatively unknown in Canadian education circles, for the benefit of the reader it should be clarified that the Dutch expression Post Primary Education can be equated to the term Secondary Education in Canada. This study will, therefore, favor the use of the term

"Secondary Education" instead of the term "Post Primary Education."

Secondary Education in the Netherlands is divided into four major categories:

1. Pre-University Education;
2. General Secondary Education;
3. Vocational Education;
4. Other forms of secondary education, which include military instruction, adult vocational training, training courses for the improvement of occupational skills for personnel of public or semi-public services, and other forms of vocational education to be designated by General Administrative Orders.

Tertiary Education.

The Dutch include under tertiary education all education beyond the secondary education level. The Netherlands Ministry of Education and Sciences' publication The Kingdom of the Netherlands, Facts and Figures (1970/1971) lists two types of tertiary education: university education, and higher vocational education (p. 90).

Vocational Education.

There are a variety of definitions for the term vocational education that appear in the literature. Dean Rupert Evans (1971) gave a comprehensive definition for this term, when he wrote:

> In its broadest sense vocational education is that part of education which makes an individual more employable in one group of occupations than in another. It may be differentiated from general education, which is of almost equal value regardless of the occupation which is to be followed (p. 1).

A publication by the Netherlands Government concerning education since the new Act on Secondary Education was implemented in 1968, mentions that the term "vocational education" used in the Act is new and includes a greater variety of schools than the previous Act.

> The term "vocational education" used in the Secondary Education Act is new. Before the introduction of the new Act, a large number of these schools were governed by the Technical, Industrial and Domestic Science Education Act. However, the new name covers more types of schools than the old. It now includes, for instance, primary and secondary school teacher training courses, commercial schools and art schools (The Kingdom of the Netherlands, Facts and Figures, 1970/71, p. 47).

Information from this same source indicates that the Act does not give a definition for the term vocational education, or state the objectives for this type of education. The Act does list the schools where programs of studies in vocational education will be taught.

Technical Education.

In the Netherlands technical education is considered as one of the branches of vocational education. The Summary of the Post Primary Education Act in the Netherlands (1968) defines technical education as:

> That part of education which is offered in technical schools and colleges, where pupils and students are prepared for a trade of a technical nature (p.6).

Senior Matriculation.

In the Netherlands senior matriculation is known under the term "pre-university education," and is intended for pupils who wish to go to universities or other institutes of higher learning, following graduation. Since the new Act was implemented in 1968, senior matriculation is offered in three types of schools: the "Gymnasia" (classical grammar schools), the "Atheneum" (modern grammar schools),

and the "Lyceums," a type of school which combines the Gymnasium and the Atheneum under one roof, with a uniform basic course of at least one year.

General Education.

In the Netherlands general education comprises all education which does not lead to university entrance or admittance to other institutes of higher learning.

Secondary Schools.

In analogy with the definition for secondary education in the Netherlands, this study will recognize all schools which are categorized as belonging to "that part of Dutch education which lies between primary schools and univerisities," as secondary schools.

Curriculum

Beauchamp (1968) defines curriculum as follows:

> Curriculum is a plan or design for the educational program of a school or a system of schools. It should be stated in a written document and made available to teachers and patrons of a school. (p. 224).

Limitations.

This study had the following limitations:

1. It was limited to an analysis of vocational education within the secondary schools of the Netherlands since 1968.
2. It was limited to vocational education programs offered in these schools, following the implementation of the new Post Primary Education Act in 1968.

3. It was limited to information that has been published on the topic of vocational education by Dutch writers.
4. It was limited to the responses made by participants in the study.

Methodology

The following methodology was used to collect data pertinent to this research investigation:

The major source of information for the study was chiefly bibliographical, supplemented by interviews with personnel of the Ministry of Educationa and Sciences (Ministerie van Onderwijs en Wetenschappen) of the Netherlands.

Primary sources were releases published by the Ministry, as well as books written in the Netherlands directed specifically toward vocational education.

To assist the researcher in structuring questions to be asked of participants, an interview schedule was designed. A review of the literature on instrument design was made. The purpose of this review was to structure and organize the questions to be used in the interview schedule.

This interview schedule was translated from English into Dutch. This translation was back-translated and certified by the Berlitz School of Languages of Calgary, Alberta to ensure the accuracy of each question. (See appendix I for a copy of the English and the Dutch versions of this interview schedule).

The Chancelor of the Consulate of the Netherlands in Edmonton was contacted by correspondence, asking him to co-operate in the research by providing the researcher with the names of education

officials in the Netherlands who give direction to vocational education.

On-site interviews were conducted in The Hague, Rotterdam, and Amsterdam with education officials in those centers to collect data for the study. Interviews were conducted with the following officials: officials at the Ministry of Education and Sciences, vocational education inspectors of the Ministry, vocational school administrators and teachers. To assist in collecting the data, the interview schedule specifically designed for this study was used.

Population and Sample

The total population involved in this study included all the officials of the Netherlands Ministry of Education and Sciences, all vocational school administrators and teachers in the Netherlands.

The sample selected comprised an official of the Ministry of Education and Sciences giving direction to vocational education; two officials of the vocational education inspection branch of the Ministry; as many school administrators and teachers of vocational schools willing to co-operate during on-site visits made by the researcher.

Data Analysis

During a visit to the Netherlands in July and August, 1973, interviews were sought with officials of the Ministry of Education and Sciences of the Federal Government of the Netherlands, with inspectors for vocational education of the Ministry, and with principals and teachers of vocational schools in the Netherlands.

Tape recordings were made of these interviews. Further, hand-

written notes were made also, and in addition any booklets, pamphlets and other printed materials regarding vocational education in the Netherlands that were available were collected.

The tape recordings, made during the on-site interviews in the Netherlands, were kept for linguistic analysis. Data collected from these recordings were combined with data from the interview schedule to produce the findings of the study.

These data were supplemented by handwritten notes made during the interviews with participants of the study. These notes were used with information from the tape recordings and the literature in reporting the findings of this study.

The major source of data and information on the topic of vocational education in the Netherlands, however, was bibiliographical in nature, and consisted of the books, booklets, pamphlets, and other printed materials pertaining to the topic that were obtained in the Netherlands.

CHAPTER II

HISTORICAL BACKGROUND

Introduction

The development and changes in education in the Netherlands in the past 100 years, paralleled the changes in the history of that nation. (The Ministry of Education and Sciences in the Front Line of Social Development, 1973).

A century ago economic life in the Netherlands was dominated by agriculture and stock-breeding in the rural areas of the nation, and by commerce and shipping in a few of its major cities. At that time in its history there were few industries, and those that did exist had a definite relationship to agriculture or shipping.

Since 1870 the Netherlands experienced continual development of its industrial base, which showed a rapid rate of expansion during the First World War. Shortly after the First World War, vocational education in the Netherlands, for the first time, was organized through an Act on Vocational Education, that was passed in 1919.

Historically the involvement of the Government of the Netherlands in education followed a zig-zag pattern, which started with elementary education, progressed to university education, then to academic secondary education, and finally with nursery school education. (The Ministry of Education and Sciences in the Front Line of Social Development, 1973).

Following the Second World War the Netherlands developed, quite rapidly, into one of Western Europe's most highly industrialized

nations. Simultaneously the number of farms in the rural areas decreased as rapidly as its industrial base grew; the nation relinquished its overseas colonies to the indigenous populations; and shipping and sea-fisheries industries diminished in importance.

This rapid change in the economic base of the Netherlands was emphatically pointed out in a publication released in 1973 by the Ministry of Education and Sciences. In part this publication stated:

> With respect to its economy, the Netherlands changed more in the last 25 years than in the previous 250 years (p.24).

In the years following 1945, education was forced to change. This forced change was brought about by an increase in the number of births, which in 1951 was reflected in the increased number of elementary school enrollments, and in 1957 increased the number of secondary school enrollments.

Educators were faced with problems that they never encountered before. Some of the problems they faced were:

1. An increased demand for education above the elementary level.
2. The desirability of curricula changes that were to align education with the needs of students and society.
3. A change in the philosophies of education to reflect the ideas of a modern society. (The Ministry of Education and Sciences in the Front Line of Social Development, 1973, p.26).

In 1863 the Government of the Netherlands passed that country's first Act on Secondary Education, which organized the high schools. Vocational education was organized later, and was --in the beginning-- entirely dependent on private initiative. The very first government involvement in vocational education only occurred with the passage of

an Act on Vocational Education in 1919, which "was considerably in advance of its time" (Gregoire, 1967, p. 27). This Act is reported by Gregoire (1967) as regulating education "for a trade in industry, for seafaring, for housekeeping, for rural housekeeping and for manual work done by women" (p. 27), and covered vocational education at schools as well as apprenticeships, and trade training in every form. Vocational education was based on general education.

Before the passage of the New Act on Secondary Education in 1963, which became operational in 1968, academic education in the Netherlands was traditionally offered at three levels. Each level of education was more advanced:

1. Extended Elementary Education (Uitgebreid Lager Onderwijs), of which the duration was two years.
2. More Extended Elementary Education (Meer Uitgebreid Lager Onderwijs), with a three year duration.
3. High School Education, with a duration of five years, was offered at the "Hogere Burgerscholen" or at the "Gymnasia." Both types of schools offered full matriculation programs that provided the students with university entrance. These schools had two main streams each: the mathematics-physics stream, and the economics-oriented stream. In each of these streams the four modern languages (Dutch, French, German and English) were compulsory for every student enrolled in the curricula for each stream. Moreover, the students in the "Gymnasia" had Latin and Greek as additional compulsory language courses.

The Constitution of the Netherlands and Education

All education in the Netherlands is governed by laws enacted by the Federal Government.

On the issue of education a government publication quotes the Constitution of the Kingdom of the Netherlands in this way:

> Education shall be the subject of constant solicitude on the part of the Government. (The Kingdom of the Netherlands, Facts and Figures, 1970/1971, p. 32).

This same source reveals that in 1848 a provision was included in the constitution, stating that the "giving" (sic) of education was free. This source also goes on to explain that when this provision was inserted into the constitution, it meant only that the founding of a school did not require the permission from the government. Therefore, organizations could found schools, depending on the needs of groups of people, without requiring permission from the federal government to do so.

Originally this provision was placed in the constitution to comply with the wishes of those who supported denominational education. This would gurantee those parents and their children the right to be educated in schools associated with their religious beliefs. However, the constitution did not guarantee financial support from the federal government for (private) religious denominational schools. In reality, this provision of the constitution had no formal significance for the poorer religious groups, because they experienced considerable financial difficulty in raising funds to open and maintain private schools for their children.

The federal consititution was amended in 1917. In its amended form the Constitution gave freedom of education a monetary basis, by

placing public and private elementary schools on an equal financial base. Since 1917 this principle was gradually extended to other types of schools by the enactment of appropriate legislation.

Today the Constitution of the Netherlands makes state funds available to both public and private groups for the maintenance of their schools. However, private schools must comply with the same statutory conditions relating to their establishment and operation as public schools, in order to qualify for state financing. On this issue a federal govenment document makes this statement:

> In fact, the same standards are applied to both public and private education, because the statutory regulations governing publicly maintained education are the same as the conditions imposed on private schools, with the proviso that the conditions must respect freedom of religious or other persuasions. This ensures that there is no difference berween the quality of teaching and qualifications obtained in public and private schools financed by the State. (The Kingdom of the Netherlands, Facts and Figures, 1970/1971, p.9).

Vocational Education in the Past

Prior to 1919 the Government of the Netherlands was not responsible for any form of vocational education in that country.

In 1919 an Act on Vocational Education was passed, which placed vocational education under the jurisdiction of the Federal Government of the Netherlands. This Act was an omnibus piece of legislation and included vocational education at the secondary school level as well as at the apprenticeship level, and other forms of trade training.

Gregoire (1967) reports that, since 1919 and previous to the adoption of the new Act on Secondary Education in 1968, vocational education in the Netherlands was never a sequel to secondary education, but rather parallel to it (p.22). This same author points out

that in 1959 as much as 90 per cent of vocational education was offered in private schools; that the entire Dutch school system was highly decentralized and that, provided schools observed some very flexible rules, they remained almost independent of State intervention (p.27).

In discussing those schools that were established under the provisions of the 1919 Act on Vocational Education, Gregoire (1967) states that general education was neglected, and that three levels of vocational education were in existence at that time - elementary, intermediate, and higher vocational education. This same author also states that these three levels of vocational education in the early part of the 20th century were "progressively distinguished" (p. 27). The three levels were discrete, and were mainly offered in private schools.

Gregoire further reports that apprenticeship showed a steady increase after 1950. At that time the apprenticeships were supervised by Institutes ("Stichtingen"), under governing bodies made up of employers and labor. The Government had no power to influence the decisions made by these Institutes. There was an Institute for each main branch of industry. However, the Federal Government did pay all net costs for apprenticeship programs. There were no rigid lists of recognized trades; trade standards were flexible, so that firms had considerable freedom in the training of their apprentices. The apprenticeship training period varied from one to three years. During this time apprentices were obligated to attend prescribed courses that were offered at the elementary technical schools. Apprentices who attended these courses did so on their employer's time.

In its publication The Ministry of Education and Sciences in the Front Line of Social Developments, (1973), the Ministry of Education reports that all Acts on education in the Netherlands were altered or replaced by new Acts several times since 1919 (p.15). This same source also reveals that it was not until 1955 that nursery school education was finally organized through an Act on Nursery School Education (p. 15).

Prior to the new Act on Secondary Education (1968), the Act in the Constitution of the Kingdom of the Netherlands regulating a large number of the vocational schools was the Technical, Industrial and Domestic Science Education Act, of which no date of enactment is reported in the Ministry of Education's publication.

At the time the New Act on Secondary Education (1968) was adopted, Gregoire (1967) reported that the three levels of vocational education --elementary, intermediate, and higher vocational education-- were still in existence. This same author stated:

> Pupils enter the elementary level at the end of six years of primary school, that is in most cases at the age of 12: in 1961-1962, 36 per cent of boys of 14 and 30 per cent of girls of the same age were receiving this education, the former in the "lagere technische scholen" (LTS -- elementary technical schools) or elementary agricultural or horticultural schools, the latter in schools of ordinary or rural domestic science. In that year the total number enrolled in the LTS was 120,700. The courses last three years, fewer and fewer of those who have taken the additional two-year primary school course being excused the first year. This first, or preparatory, year is designed both to be a continuation of the primary school and to provide some orientation in the choice of trade: from 18 to 20 weekly lessons are devoted to general education and the remainder to a practical initiation in carpentry, metal-working, clay modelling or builders' painting. During the second and third years, on the other hand, practical training takes up about half the timetable, the remainder being devoted to general instruction and theoretical vocational education. During the second year students

> are divided into three groups: metalworkers, woodworkers and building workers; and these sections are themselves subdivided in the third year.
>
> At the intermediate level come the extended technical schools ("uitgebreide technische scholen" UTS) of recent creation, which are designed to train skilled workers but not technicians, who are trained in the "hogere technische scholen" (HTS -- higher technical schools). The UTS courses are open to students with a certificate of intermediate education, which lasts for four years from the end of primary school, and those who have successfully completed two years of secondary education. Those with an LTS certificate are not admitted automatically, but an increasing number of them gain admittance by an examination followed by a one-year part-time transition course. Schooling lasts two years, followed by one years' practical work in a firm under supervision by the school (pp. 27, 28).

The previous paragraphs have attempted to briefly outline the status of vocational education in the Netherlands just prior to the enactment of the new Act on Secondary Education. The next section will describe the major events that led to the passage of this new Act, and subsequent sections will be a detailed analysis of vocational education under the new Act on Secondary Education.

Events leading up to the New Act on Secondary Education

In the period following the Second World War, the need for changes in education became strongly felt in the Netherlands. Regarding the impetus for change in the educational system of the nation Fabius (1966) wrote the following:

> The demands of society in the socio-economic as in the technical and scientific sense have undergone such drastic changes since the last World War [World War II] that educational reform is the order of the day in nearly every country in the world.
>
> This is true also of the Netherlands. At the time of writing (1966) ambitious reform schemes are under way, relating both to statutory provisions regulating education and to the actual content of the education given (p. 1).

Due to a large increase in the number of births since 1945, the number of students enrolled in elementary schools rose sharply in 1951, and this increase in the number of enorllments was reflected in the secondary schools in 1957, when enrollments increased considerably. Although no actual statistics were available to the researcher regarding this increased enrollment, Gregoire (1967) reported that, even in the years between 1960 and 1962, the total number of full-time UTS students increased from 9,945 in 1960 to 13,086 in 1962, and to these must be added some thousands of part-time students (p. 28).

The "Mammoth Act"

In 1963 the Government of the Netherlands ratified the New Act on Secondary Education, which due to its enormous and far-reaching undertaking soon became known as the "Mammoth Act." This new Act became operational on August 1, 1968, and it brought about changes in curricula, guidance systems, and evaluating systems in education.

Under the term vocational education the Act includes commercial schools, agricultural schools and schools of fine arts. All of these schools were previously the responsibility of another Department of the Government, other than the Ministry of Education and Sciences.

The Ministry of Education and Sciences in one of its publications reports that the new Act provided an ideal opportunity to completely review school curricula (A New Approach to Education, 1971, p. 6). Another result of this Act was that the teaching of mathematics and modern foreign languages was entirely re-organized. For example, in the teaching of foreign languages greater attention is paid to fluency in the language being studied than was the case in the past.

The same Government publication points out that the wording of the new Act differs from the wording of the old Act. In the old Act the purpose of technical, industrial and domestic science education was to "train people for trades, crafts, seafaring and housekeeping, etc." An analysis of the new Act's wording shows that "train" (in which the occupation is stressed), is replaced by the word "prepare" (where the emphasis for learning is on the pupil).

Another result of the New Act was that new ground was broken in the field of examination techniques. For the first time in the schools in the Netherlands different methods of testing knowledge have been introduced; objective tests have replaced subjective tests.

Other changes brought about or introduced by the New Act on Secondary Education (1968) were reported in A New Approach to Education (1971). This publication mentions the following changes that were brought about by the New Act (1968):

> The aims of education were formulated anew.
> The relationship between education and society were analysed to detect which part education can play in the changes and in the improvements needed in society, and to formulate the demands society makes of education.
>
> The links between various schools in the educational system were improved and safeguarded.
>
> A provision was made for the future development of "integrated comprehensive" secondary schools, in which the three main streams of secondary education -- academic, general, and vocational education-- may be brought together in one school building (p.14).

Structure and Organization of Vocational Education in the Netherlands

The structure of the educational system of the Netherlands was drastically changed as a result of the New Act. The present structure which resulted from this Act is illustrated in chart 1 on page 20.

Some of the features that this chart discloses are:

Dutch students, upon completing six years of primary education, continue their education by entering a transitional year (The Dutch use the term "bridge year" for this transition year) of secondary education.

Following this transition year the students formally enter into one of the three streams of secondary education. These three streams are:

1. Academic education;
2. General education; or
3. Elementary vocational education.

Further analysis of this structure chart for each of the three streams of secondary education reveals the following:

Academic Education. Including the transitional year, academic education at the secondary level takes 6 years to complete. Successful graduates of this curriculum obtain entry requirements for either university or for higher vocational education. The last two years of academic education are sub-divided into four different types of academic education. In these last two years the academic education students have a choice among either one of the two streams of modern grammar school education ("Atheneum") or one of the two streams of classic grammar school education ("Gymnasium"). The difference between these divisions are the quantities of mathematics and physics courses and exclusion or inclusion of the classic languages (Latin and Greek) in the curricula.

THE STRUCTURE OF EDUCATION IN THE NETHERLANDS

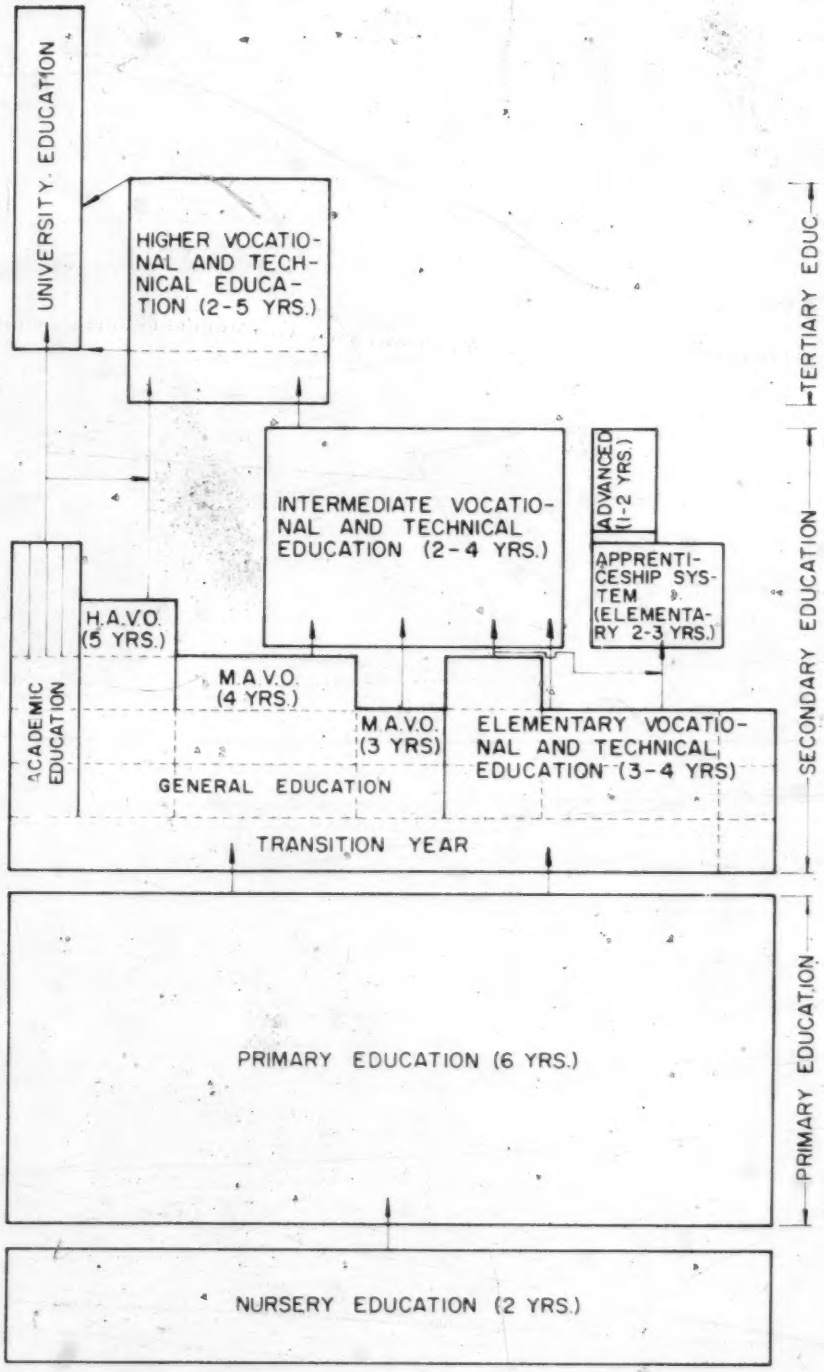

CHART I

General Education. According to the information from chart I there are two sections into which general education in the Netherlands has been sub-divided. These two sections of general education are:

a. Intermediate General Education (MAVO - Middelbaar Algemeen Voorbereidend Onderwijs); duration three or four years, including the transition year, depending on the program.

b. Higher General Education (HAVO - Hoger Algemeen Voorbereidend Onderwijs); duration five years including the transition year.

Intermediate General Education (MAVO) has replaced the "Extended Elementary Education" (U.L.O.) --of which mention was made earlier in this Chapter-- that existed before the adoption of the new Act on Secondary Education in 1968.

Formerly an extension of elementary education, under the new Act this type of education is now categorized under secondary education.

Students are streamed into MAVO school education on the strength of their aptitudes and achievements displayed in elementary education, and on the recommendation of the administrators and staff of that elementary school where the students completed their last year of elementary education.

The first year at the MAVO schools is a transition year, like in all other branches of secondary education. In this transition year the curriculum includes courses in: Dutch, French, English, history, geography, mathematics, biology, music, fine arts, industrial arts and physical education.

In the two or three years following the transition year, the

students receive instruction in the following basic subjects: Dutch; French; German; English; history; geography; political science; economy; mathematics; physics; chemistry; biology; music; art; industrial arts; and physical education. In addition, the students of some schools are offered a choice of: Spanish, Frisian (the official language of the Province of Friesland of the Netherlands), religious instruction, art history, child care, health care, home making, nutrition, care of clothing or the theatrical arts.

All students must include Dutch and at least one of French, German, or English in their curriculum.

The three year MAVO school education is concluded by a final (State) examination. Included in the list of subjects for this final examination are Dutch, at least one additional modern language, and a choice of at least three of the following subjects: history, political science, geography, mathematics, biology, and economy.

Students of four year MAVO school education write final (State) examinations in the same subjects as the three year MAVO school students. However, in addition, to Dutch and at least one modern language they must write examinations in at least four of the subjects listed above.

Graduates of MAVO school education may either enter the world of work in lower clerical positions with government or industry, or else they may choose to further their training in intermediate vocational education in a field of specialization of their choice.

Higher General Education HAVO has been specifically designed for the academically inclined secondary education students, who do not intend to continue their education at a university.

Like MAVO school education, the students of HAVO school education are streamed into this branch of Dutch secondary education on the recommendation of the administrators and staff of the elementary school where the students successfully completed their elementary education.

After the first, transitional year, students enrolled in HAVO school education must choose from prescribed "study-packages" that offer instruction in: Dutch; French; German; English; history; political science; geography; economy; mathematics; physics; biology; music; art; industrial arts; and physical education.

Some HAVO schools offer additional language subjects, such as Spanish, Russian, Esperanto, Frisian, or Latin. Also at some HAVO schools the students may receive instruction in philosophy, religion, astronomy, theatrical arts, health care, child care, care of the sick, homemaking, nutrition, or care of clothing.

At the conclusion of HAVO school education, the students must write final (State) examinations in the following subjects: Dutch, and at least one of the modern, foreign languages. Further the candidates must choose four more examination subjects from: the remaining modern languages listed previously, history, political science, geography, mathematics, physics, chemistry, biology, or economy.

Graduates of HAVO school education may either enter the world of work in administrative positions with government or industry, or they may choose to further their education in a field of their choice in higher vocational education.

Elementary Vocational and Technical Education in the Netherlands has a duration of either three or four years, including the transition

year, depending on the trade or occupation. Chosen graduates of elementary vocational and technical education may enter either the world of work, or the apprenticeship system. These graduates may continue in secondary vocational education at the intermediate level. Educational statistics from the Netherlands indicate that almost 50 per cent of all Dutch elementary school pupils enter into elementary vocational education. (The Kingdom of the Netherlands, Facts and Figures, 1970/1971, p. 49).

It should be noted that the structure chart of education in the Netherlands groups technical education together with vocational education. Technical education in the Netherlands is considered a branch of vocational education, and is defined as education for an occupation or trade of a technical nature.

In the Dutch educational system technical education is given a great amount of emphasis. Fabius (1966) comments on technical education in the following manner:

> Technical education is one of the most important forms of vocational training ... (p.5).

Information on the structure chart indicates that vocational education exists at two levels above elementary vocational education. These levels are:

a. Intermediate Vocational Education

b. Higher Vocational Education

Intermediate Vocational Education is available for students who have completed elementary vocational education, or three or four years of intermediate general education. Graduates of intermediate vocational education may enter either the world of work, or they may choose to

continue their education in a higher vocational education school. Students enrolled in intermediate vocational education take from two to four years to complete their program of studies, depending on the trade or occupation they choose.

Higher Vocational Education. Graduates of intermediate vocational education, higher general education or academic education programs of studies may enter higher vocational education. Students enrolled in higher vocational education require two to five years to complete their programs of studies, depending on the occupation for which they are preparing. Graduates of higher vocational education may enter directly into the world of work, or they may choose to further their education at university. Students who successfully complete a program of studies in higher vocational education may enter university above the sophomore year. Students who successfully complete the first year of higher vocational education and who wish to transfer to university, have university entry at the sophomore year level.

In the Dutch educational system higher vocational education is considered as "tertiary education," and not secondary education. This particular point will be further discussed in a subsequent section of this report.

The Ministry of Education and Sciences and the Inspection Branch

Chart 2 on page 27 illustrates the delegation of authority from the Ministry of Education and Sciences to the educational inspection branches.

At the Ministry the Minister of Education and Sciences is assisted by a Secretary of State for Education.

Directly below, and responsible to the Minister and the Secretary of State for Education, is the Inspector-General for Education who is assisted by the Chief Inspector.

An office staff serves the Ministry and the Inspector-General.

Reporting to, and directly responsible to the Inspector-General are seven Inspection Branches for Education. Each of these Inspection Branches has responsibility for a particular section of education, such as:

1. Nursery Education;
2. Elementary Education;
3. Academic Education and General (HAVO) Education;
4. General (HAVO and MAVO) Education;
5. Vocational Education;
6. Special Education, i.e. education for invalid or mentally retarded children, and education for children of transient workers; and
7. The Apprenticeship System

Curricula offered by the agricultural schools are not part of the responsibilities of the Ministry of Education and Sciences, but they fall under the purview of the Ministry of Agriuclture and Fisheries. For the purpose of inspection of schools for agriculture and curricula offered in these schools, the Ministry of Agriculture and Fisheries has a department expressly for that purpose. This is not shown on chart 2.

The Inspection Branch responsible for vocational education is sub-divided into five discrete divisions. These divisions are illustrated in chart 3 on page 29. Each of these divisions is responsible for a designated branch of vocational education. The divisions that

THE MINISTRY OF EDUCATION AND SCIENCES, FEDERAL GOVERNMENT INSPECTION OF EDUCATION, AND THE DIVISION OF EDUCATION INTO INSPECTION BRANCHES IN THE NETHERLANDS.

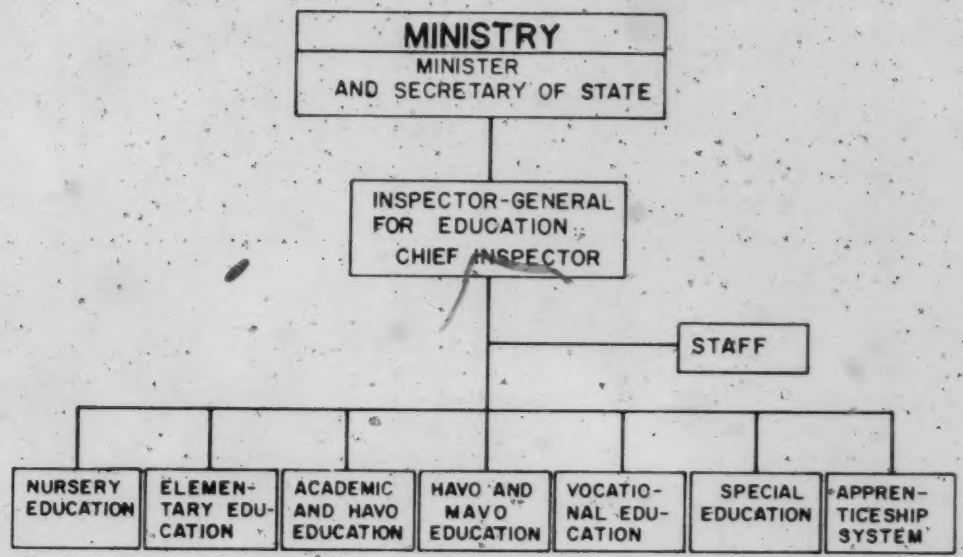

CHART 2

make up the Inspection Branch for vocational education of the Ministry of Education and Sciences are:

1. Technical education - which includes higher technical education, intermediate technical education, elementary technical education, and nautical education.
2. Domestic science education.
3. Commerce education - which includes also economics and administrative education.
4. Social-pedagogical education - which includes art education.
5. Teacher education - including technical teacher education, elementary teacher education and nursery teacher education.

The various types of vocational education mentioned in the above list, will be dealt with in a subsequent section of this document, to clarify what each program includes.

The Netherlands Government publication The Kingdom of the Netherlands, Facts and Figures, (1970/1971) mentions the number of inspectors employed by the Education Inspection Branch. This Branch employs a total of 252 inspectors, among whom 59 are women. The major responsibility of these inspectors is to serve the Education Inspection Branch as inspectors of the various curricula. These personnel work under such titles as: inspector, chief-inspector, co-ordinating inspector, general inspector, inspector of physical education, and architectural inspector.

Observations regarding some Branches of Vocational Education

Previous mention was made of the emphasis the Dutch place on technical education. Another branch of vocational education that occupies a

SUB-DIVISION OF VOCATIONAL EDUCATION FOR INSPECTION DEPARTMENT PURPOSES.

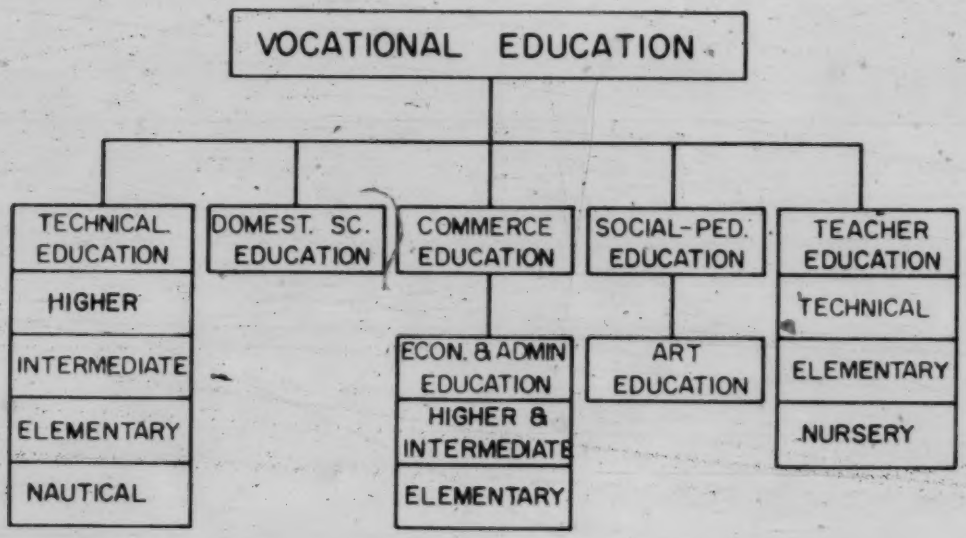

CHART 3

very special place in the education system of the Netherlands is agricultural education.. On this issue Fabius (1966) remarked:

> The Netherlands has from earliest times been an agricultural country, and it is therefore only natural that agricultural training enjoys this special attention (p.26).

The Dutch do not consider economics and administrative education as having satisfactorily been developed. Regarding this type of education Fabius (1966) wrote:

> Commercial and clerical education is in fact a weak spot in the Dutch educational system. The Netherlands already had "commercial schools", some giving three-year, others four-year courses. The former were so few in number that they may be ignored. But even the four-year commercial school was not really satisfactory. At some schools a fifth year was introduced to create a better link with the world of business and commerce. During the Parliamentary debates on the Mammoth Act, the Minister opined that the "atheneum" should be able to serve as an introduction to the study of the socio-economic sciences; however, commercial subjects like bookkeeping and commercial arithmetic do not fit very well into such an academic curriculum; they might at best be touched on to give a better general understanding of economics. Consequently, commercial training proper, as a separate form of vocational training, will continue to be based on the commercial day schools, of which those with four- and five- year courses will soon be classified by the new Act under higher post-primary education, while the schools with a three-year course will before long be classified under intermediate post-primary education. Under this Act it is possible for both these types of education to be given at one school (pp. 27, 28).

Summary

A review of the literature on the topic of vocational education in the Netherlands disclosed that it was not until 1919 that an Act on Vocational Education was passed, which included vocational education among the responsibilities of the Federal Government of the Netherlands. This original Act on Vocational Education was amended or replaced several times.

In the Netherlands all public as well as private schools are financed by the State, provided the schools comply with statutory regulations relating to their establishment and operation.

Similar to what happened in many countries of the world in the last quarter century, strong pressures were felt by the Government of the Netherlands, to reform its educational system. This call for reform was due to the impetus of socio-economic and technological changes.

Another cause for reform was since the end of the Second World War, school enrollments had increased greatly in the Netherlands. As a result of these pressures, the Government of the Netherlands passed a New Act on Secondary Education in 1963 which became operational on August I, 1968.

This new Act on Secondary Education affected curricula, guidance systems, and evaluating systems in the secondary schools in the Netherlands. It also created greater integration between the three divisions of secondary education: academic education, general education, and vocational education.

The Ministry of Education and Sciences of the Netherlands is responsible for education and has an Inspection Branch. This Branch is sub-divided into several divisions. One of these divisions of the Inspection Branch is responsible for the inspection of the schools and curricula of all vocational education institutions in that nation.

Vocational education in the Netherlands has three major divisions. These three divisions of vocational education are: elementary vocational education, secondary vocational education, and higher voca-

tional education. It was noted, that higher vocational education is not considered to be secondary education, but rather "tertiary" education.

Each of the three divisions of vocational education - elementary vocational education, secondary vocational education, and higher vocational education - has been sub-divided into eight categories. These eight categories of vocational education are: technical education including nautical education; domestic science education; agricultural education; commerce education; economics and administrative education; teacher education; socio-pedagogical education; and art education.

CHAPTER III

VOCATIONAL EDUCATION IN SECONDARY SCHOOLS IN THE NETHERLANDS

Introduction

In Chapter II the historic events which led up to the passage of the new Act on Secondary Education in 1963 in the Netherlands, and its implementation in 1968, was presented. Information in that chapter also provided the reader with an overview of the organization of the educational system of the Netherlands. The delegation of authority from the Ministry of Education and Sciences to the Inspection Branch of the Ministry, with its inspectors of education also were discussed.

In the last chapter the three main types of secondary education --academic education, general education, and vocational education-- available to Dutch students were presented. It was pointed out that there are three discrete levels of vocational education in the Netherlands. Of the three distinct levels of vocational education, two levels are considered part of secondary education: elementary vocational education, and intermediate vocational education.

This chapter will present a detailed discussion of elementary vocational education and intermediate vocational education in the Netherlands.

Vocational Education Programs Offered in the Netherlands

One of the major disadvantages of the new Act on Secondary Education in the Netherlands is that it does not give a distinct definition for the term vocational education. The Act, however,

sub-divides the schools which are considered vocational education institutions into eight categories. These eight categories, illustrated in chart 4 on page 35, are:

1. Technical education, including nautical education. The latter is vocational education that prepares the students for occupations or trades of a seafaring nature.
2. Domestic science education. This type of vocational education prepares the students in a general and practical manner for domestic and agricultural domestic occupations, as well as for nursing and similar "caring" occupations.
3. Agricultural education, provides the students with the basic training in agriculture, forestry, and environmental services.
4. Commerce education, prepares students for the commercial enterprise, so that they can set up on their own in a store, or in a service industry.
5. Economics and administrative education, prepares students for occupations of economic or administrative nature.
6. Education for nursery school teachers, elementary school teachers, and secondary school teachers.
7. Social-pedagogical education, training for occupations in youth-leading, cultural work, social work, health care, sport leading, and other occupations in this field.
8. Art education is the type of education which prepares students in the various fields of the fine arts.

With the exception of social-pedagogical education, which only occurs at the intermediate and higher vocational education levels,

SUB-DIVISION OF VOCATIONAL EDUCATION IN THE NETHERLANDS IN ACCORDANCE WITH THE NEW SECONDARY EDUCATION ACT (1968)

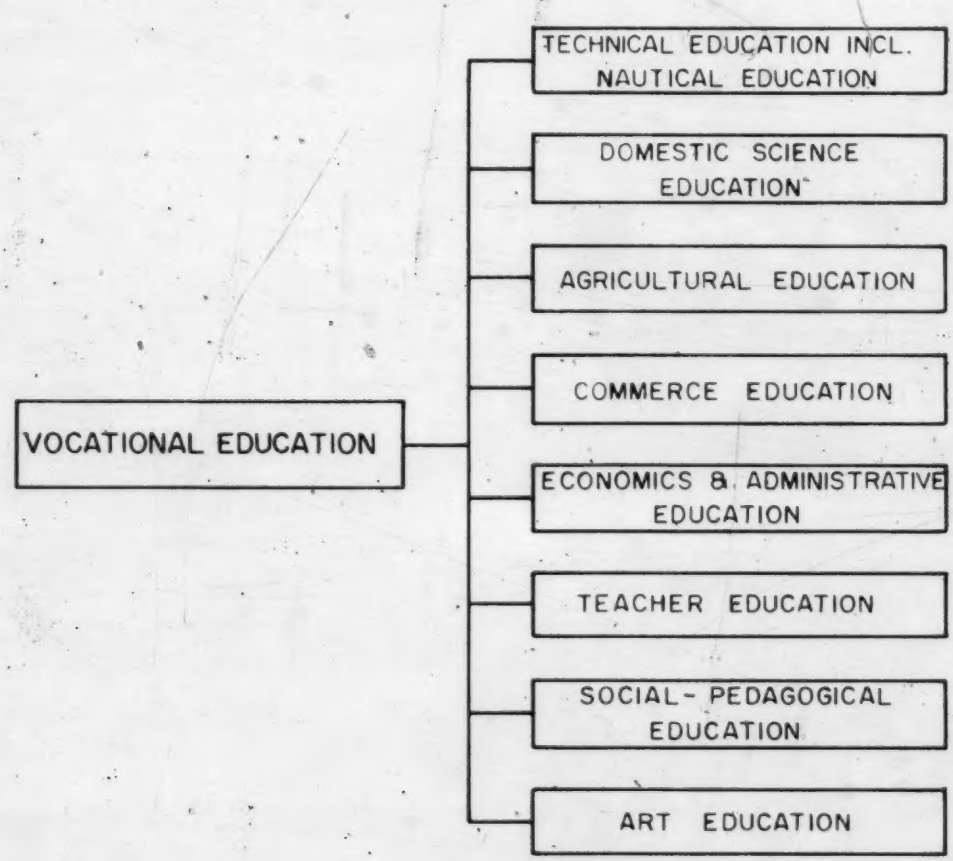

CHART 4

most of the other categories of vocational education shown in chart 4 are established on all three levels of vocational education.

However, all teacher education is included under higher vocational education, except for nursery school teacher education. This particular program is placed at the intermediate vocational education level.

Occupational Choices in Vocational Education in the Netherlands

In order for the reader to gain an understanding of the choices of trades or occupations that are available to vocational education students in the Netherlands, each of the three levels of vocational education previously mentioned will be discussed in greater detail.

Elementary Vocational Education

From the previous chapter it may be recalled that a Dutch student who has completed six years of elementary education, may be streamed into elementary vocational education.

This streaming is done on the recommendation of the principal of the elementary school where the student has successfully completed the last year of elementary education. Recommendations for admission to elementary vocational education are made by the principal, the vice-principal, and the staff of the elementary school. These recommendations are made in a staff meeting prior to the end of the school year. The recommendations that are made are normally accepted by the student's parents, although they are not fully binding; parents have the prerogative to enter their sons or daughters in other secondary educational institutions of their choice and not in accordance with the recommendations made by the elementary school staff.

Statistical information from the Netherlands indicates that nearly 50 per cent of all Dutch elementary school graduates continue their education in elementary vocational education.

In elementary vocational education four distinct types of programs of studies are offered: technical education including nautical education; domestic science education; agricultural education; and economics and administrative education.

During the researcher's visit to the Netherlands in 1973, it was found that elementary vocational education programs required either three or four years to complete, depending on the program. At the time of this visit, the researcher became aware from discussions with participants of the study that the Ministry of Education and Sciences was contemplating a major change in the elementary vocational education programs. The information gathered from those sources was that all three year programs were to be changed to four year programs. This change was to be made by adding one extra year of general education to each three year program.

After returning to Canada the researcher received a pamphlet from the Ministry of Education and Sciences, announcing that starting with the 1973/1974 school year all elementary vocational programs would be four year programs.

In elementary vocational education the student may elect to take one of the following programs of study:

1. Technical education, including nautical education.
2. Domestic Science education.
3. Agricultural education.
4. Economics and administrative education.

In the following sections each of these four branches of elementary vocational education will be presented in detail.

Technical education and nautical education. Elementary technical schools offer programs of studies in the building trades (carpentry, bricklaying, concrete work), in metalwork (machinist, welder), and in food service trades such as baker or cook.

Elementary nautical schools provide education for: sea-fishermen, seamanship (able-bodied seamen for the merchant marine), inland navigation ("skippers" of barges), and stevedores (dockworkers).

For most of these courses the duration, including the transition year, is four years.

Technical Education

Discussions with participants of the study in the Netherlands soon made the researcher aware of the great empahsis the Dutch place on technical education.

After completing elementary education and upon having been advised to enter elementary vocational education, students may elect to enroll in an elementary technical school. These schools are intended to train the skilled craftsmen needed by industry.

Prior to the change in 1973, when all elementary vocational programs were made to be of four year duration, some elementary technical schools offered three year programs of studies, while others offered four year programs.

Chart 5 on page 40 illustrates the three year programs at an elementary technical school before the change. It also shows the choice of trades that are available, and the articulation that exists

between the elementary technical schools and the apprenticeship system.

The first year at all elementary technical schools --the transition year-- is devoted mainly to general education, with a small part of the time devoted to theoretical, preparatory technical education; at least two-thirds of the time in this transition year is scheduled for general education.

After this transition year the students may elect to enter either one of the following three sections: the general metalwork section, the general woodwork section, or the special subjects section. The latter is devoted to subjects such as bricklaying, painting, and so forth.

In the third year the student receives more specialized instruction in the trade of his choice. For instance, in the metalwork section instruction is offered in: fitting and turning (lathe work); fine metalwork; electricity; and automotive mechanics. At the beginning of the third year the student in the metalwork section must choose a program from among these four areas of metalwork as his field of specialization.

A student enrolled in the woodwork section must make a choice at the onset of the third year between either carpentry, or joinery as a field of specialization. Similarly, third year students enrolled in the special subjects section of the elementary technical schools receive in-depth instruction in such courses as bricklaying, or painting.

At each elementary technical school there exist two distinct departments, the T-department (or Theory Department) and the P-department (Practice Department). When students in these schools are streamed into either general metalwork, or general woodwork, or special subjects, at the beginning of the second year, they are also placed in either the T-department or in the P-department.

ELEMENTARY TECHNICAL SCHOOLS AND THE APPRENTICESHIP SYSTEM IN THE NETHERLANDS

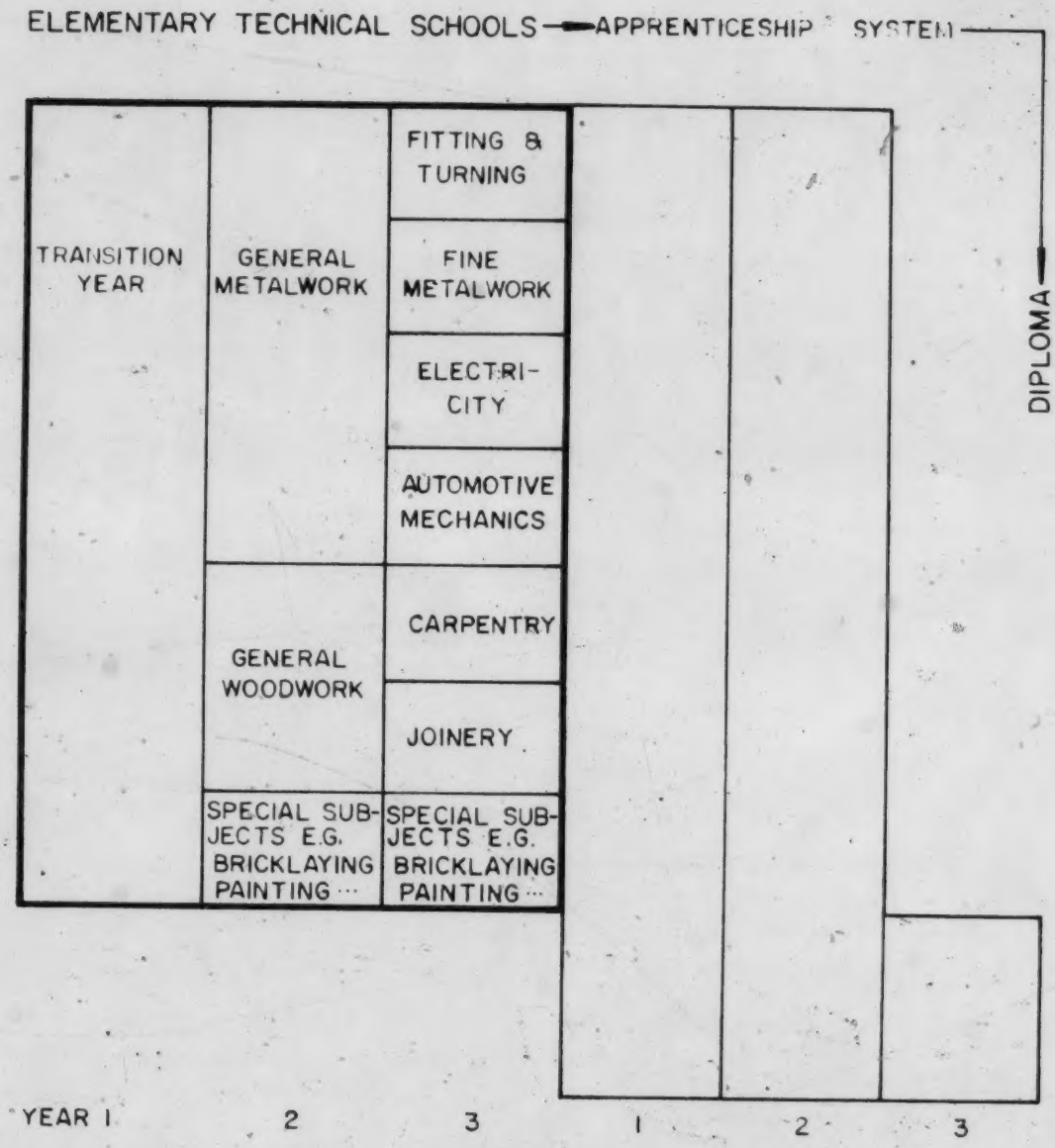

CHART 5

The purpose of the T-department is to provide the student who is considered capable of handling larger amounts of theoretical learning to do so. After graduating from the elementary technical school, the graduate of this department is expected to continue his education in an intermediate technical school.

The P-department is intended for the student who is less theoretically inclined. The graduate of the P-department is expected to enter the world of work through the apprenticeship system.

Elementary technical schools that have a four year program of studies have the second year devoted to general education for all students. After the second year, the program of studies at these schools is the same as that at schools that have a three year program of studies.

Graduates of elementary technical schools, whether from a three year or from a four year program, who enter the world of work, must be apprenticed to an employer. To ensure proper further training, the employer and the father of the apprentice (who is usually a minor) must sign an Apprenticeship Agreement. Under the terms of the Apprenticeship Agreement the employer undertakes to train the apprentice properly, and the father of the apprentice promises --on his own and on his son's behalf-- that the apprentice will undergo the prescribed apprenticeship training. This training is regulated by the Apprenticeship Act.

Indentured apprenticeship may take between two to three years to complete, depending on the trade. During that period of time the apprentice is obligated to work for his employer. Concurrent with this work experience the apprentice has to attend classes for

apprentices conducted at a technical school. Attending formal classroom sessions is done on the employer's time. Upon successful completion of apprenticeship training the apprentice is granted a tradesman's diploma in the area of specialization.

Nautical Education

The programs of studies at the elementary nautical schools provide training for seamen, for sea-fishermen, for hands for inland navigation ships, and for dockworkers.

The programs in the above seamanship courses normally take three years to complete. The elementary nautical schools offering these programs are located in the seaports and fishing ports of the Netherlands.

In Rotterdam and Amsterdam, the two major seaports of the nation, elementary nautical schools are found and are referred to as harbour schools. These harbour schools train dockworkers as well as technical and administrative personnel for the harbour industries. The harbour school in Rotterdam is housed in a decommissioned oceanliner which was purchased specifically for the purpose of becoming a floating day-school and is permanently anchored in the harbour for that purpose.

The programs offered at the harbour school take three years to complete. The first year is a transition year, and is the same for all students. In the second year of this three year program the students are divided into two categories: the Operational Sector; and the Technical-administrative Sector.

The Operational Sector offers a program of studies that is intended to train male students in stevedoring (dockwork). The harbour school

in Rotterdam is located on board ship, with all of the cargo-handling facilities on board this ship in operable condition. Practical training is given to the students in the proper procedures to be followed in stowing cargo in the ship's cargo holds, with the use of the ship's booms and winches.

The Technical-administrative Sector at the harbour schools offers programs of studies to both male and female students, which prepare these students for junior positions in either the cargo-handling, transportation, or port facilities industries.

Upon completing the program of studies at either of these harbour schools, the graduates of both sectors enter the world of work through the apprenticeship system. Apprenticing normally takes two years, after which the apprentice receives a diploma in a designated trade.

Domestic Science Education.

With a few exceptions the elementary vocational schools in this category are exclusively for female students. Training is offered in courses such as health care, child care, homemaking, care of clothing, nutrition and needlework, as well as general education courses. The duration of these courses is three years; the third year offering students a choice of subjects stressing either domestic training or needlework, or else preparing them for work as office junior (clerk), apprentice salesclerk, or apprentice hairdresser.

Like the elementary technical schools, elementary domestic science schools offer programs of studies in either the T-department (Theoretical Department); or the P-department (Practical Department).

In the T-department at the elementary domestic science schools the programs are theory oriented, and normally take three years to complete. The T-department in these schools offers courses in health care, child care, homemaking, and care of clothing. The graduates from this department have entry requirements for intermediate domestic science schools, and are expected to further their education in these schools.

The P-department of the elementary domestic science schools is more oriented toward the practical aspect of the above trades. Graduates from this department normally enter the world of work as junior office workers, or as apprentice hairdressers, or apprentice sales clerks. They may, however, elect to enter a program of studies in intermediate domestic science education, in which case the graduates of the P-department are required to successfully pass an entry examination in selected subjects. This will be further discussed in a subsequent section of this chapter, under intermediate domestic science education.

The programs of studies in the P-department normally take three years to complete.

Agricultural education.

Schools in this category include agricultural schools, horticultural schools, forestry schools, and agricultural technology schools.

Elementary agricultural schools have close regional ties. As a result a fairly large number of small elementary agricultural schools are reported to exist in the nation.

Like other vocational education in the Netherlands, the first year of the elementary agricultural schools and of the elementary horticultural schools is considered to be a transition year. This transition

year differs from that in all other elementary vocational education schools. In the transitional year in elementary agricultural schools an additional course is taught. This additional course involves manual dexterity, and introduces the student to either woodwork or metalwork. The philosophy behind this type of an arrangement is, that a student may discover in subsequent years that he has no aptitude for agriculture or horticulture, and may wish to transfer to elementary technical education.

In addition to the general education subjects students enrolled in these schools can elect two or three agricultural subjects.

The programs of studies at both the elementary agricultural schools and the elementary horticultural schools normally take four years to complete. Following the transition year, special attention is given to the practical aspect of training to emphasize this aspect of training. In the last two years, students do practical work outside of the school. In the third year the practical experience of the student is for a maximum of one day per week. In the fourth year the time spent outside the school doing practical work is doubled to two full days per week.

Economics and Administrative Education

Elementary vocational schools that offer economics and administrative education provide programs of studies to train the student for lower executive posts in the commercial and the clerical sectors of industry and government.

Elementary commercial schools are the most recent innovation in elementary vocational education in the Netherlands. Because of their newness, in 1971, these schools were considered to be experimental.

Both retail trade schools and commercial schools in the Netherlands have the responsibility for providing programs of studies in either economics or administrative education.

Elementary retail trade schools are co-educational. These schools offer a program that takes four years to complete. In these schools special attention is given to languages; students must choose two foreign languages from French, English or German, in addition to studying Dutch. Training in these schools includes subjects that are specifically directed at the retail trade, such as business economics, bookkeeping, commercial organization, legal knowledge, sales techniques, window-displays, advertising, and so forth.

The elementary commercial schools offer programs of studies that take three years to complete. These programs prepare students, who have basic aptitudes for theoretical learning, for lower clerical or commercial positions. In these schools much emphasis is placed on languages. Other courses include: bookkeeping, commercial arithmetic, commercial practice, shop and office practice.

In the field of economics and administrative education in the Netherlands no further training in the apprenticeship system existed at the time of this study.

Four Year Programs in Elementary Vocational Education

In 1973 the Ministry of Education and Sciences issued a ruling which announced that after 1973 all elementary vocational school programs of studies would be of four years duration instead of three years. The additional year would be made up in the second year where the student would concentrate on general education. Because of the ruling of the Ministry graduates of all elementary vocational education

schools will be sixteen years of age by the time they graduate from these schools and are ready to progress to the next higher level of education, or enter the world of work.

INTERMEDIATE VOCATIONAL EDUCATION

The second level of vocational education in the Netherlands is referred to by Dutch educators as intermediate vocational education.

Successful graduates of elementary vocational education programs meet the entry requirements for admission to intermediate vocational education schools. Graduates of the three or four year MAVO schools also have the necessary pre-requisites for entry into intermediate vocational education schools.

Intermediate vocational education is available to graduates of elementary vocational education schools or MAVO schools, in the following fields of education: technical education including nautical education; domestic science education; agricultural education; economics and administrative education; teacher education; and social-pedagogical education.

Technical education.

Intermediate technical schools prepare students for either a profession or position of a technical nature in one of the following fields: executive, constructional, supervisory, administrative, economic, or commercial. These schools prepare students to design and use technical structures and processes, both in theory and in practice.

There were 64 intermediate technical schools in the Netherlands in 1972. Most of these schools are located in the main population

centres. Some of the cities with large populations have more than one intermediate technical school. For instance, Rotterdam has five of these schools, while Amsterdam has four intermediate technical schools.

Entry into intermediate technical schools is open to graduates of the T-department of any elementary technical school. Graduates of three or four year MAVO schools also have the necessary qualifications to enter an intermediate technical school. Individuals who have graduated from an elementary agricultural school may also enter an intermediate technical school. In special cases, however, students who have completed pre-requisites which can be equated to the three or four year MAVO school education, may be admitted into an intermediate technical school upon writing an entrance examination.

The programs of studies at the intermediate technical schools take four years to complete. Of these four years, the first three years are theoretical years, with the last year devoted to practical experience in industry under the supervision of the school.

The intermediate technical schools offer 36 different programs of studies. These programs of studies range from mechanical technology to instrument making. (A complete listing of these programs of studies can be found on page 135 in appendix II.)

Graduates of intermediate technical schools, in addition to entering the world of work in lower executive positions, also possess the necessary qualifications for entering either a higher technical school, or higher vocational education. In higher vocational education these individuals can enter into a program of teacher education for technical school teachers. Another avenue of education that graduates

of intermediate technical schools may follow is that of the higher nautical schools, or they may join one of the police forces.

Included among the intermediate technical schools are those for assistant laboratory personnel. These schools offer a three year program of studies in analytic chemistry, micro-biology, macro-biology, and laboratory technician. In 1972 there were 18 schools for assistant laboratory personnel in the Netherlands.

Nautical Education

Intermediate nautical schools offer courses which prepare students to assume positions as either a mate, or a ship's engineer on coastal trading vessels. The programs of studies offered in these schools normally can be completed in two years. After the successful completion of the school-leaving examination, other special requirements must be met before students can qualify for a State certificate which will permit them to act as either a mate or ship's engineer. One of these special requirements is that the student must serve at sea for one year.

Intermediate nautical schools include five training schools for mates of coastal trading vessels, and five training schools for mates of sea-fisheries ships. Training for engineers of coastal trading vessels is offered at eleven intermediate nautical schools; training for engineers of sea-fisheries ships is offered at four intermediate nautical schools.

In some cases the intermediate nautical schools are housed in the same building that houses the higher nautical schools. However, many of the smaller intermediate nautical schools are located in smaller sea ports or in fishing communities along the coast of the Netherlands.

With the exception of the program for engineers of coastal trading vessels all intermediate nautical school programs take one year to complete. The program of studies for engineers of coastal trading vessels may take either one or two years to complete, depending on the student's previous education.

Entry requirements for the intermediate nautical schools are not uniform. Students who wish to enter the program for engineers of coastal trading vessels must be graduates of elementary technical schools in programs like metalwork or electricity, or else they must be a graduate of a three year MAVO school.

An additional entry requirement for those wishing to enter the programs for mates of coastal trading vessels, or for mates and engineers of sea-fisheries ships, is that the applicant must have acquired a number of years of experience as either a deckhand or as an engineroom helper on board a seagoing vessel. This practical experience must be acquired after the applicants fourteenth birthday.

Prospective students of all intermediate nautical schools must pass a medical examination prior to being admitted to these schools.

Domestic Science Education

Schools for domestic science education of intermediate vocational education are senior departments for these schools that offered these programs of studies on the elementary vocational education level. Programs of studies that are offered in the various department of these schools include:

Program of Studies	Years to Complete
Caring Professions	2
Child Care	2
Domestic Staff for Institutions	2
Dressmaking	2
Fashion Designing	1
General Education *	1
Preparing for Higher Vocational Education	3
Residential Welfare Worker **	2
Assistant Pharmacist	2 ¼

* Students enrolled in the program of studies for general education, after successfully completing the program, may enroll in Fashion Designing which can be completed in one year.

** The course for Residential Welfare Worker prepares students to work independently in hospitals, senior citizens' homes, as well as other welfare institutions in the Netherlands. Successful completion of the program grants the student admission to nurses' training in higher vocational education.

In 1972 there were a total of 457 intermediate domestic science schools. These schools are located throughout the nation in its major centres of population. Some of the larger cities have a number of intermediate domestic science schools. In 1972, 15 intermediate domestic science schools were located in the city of Amsterdam.

Both elementary and intermediate domestic science schools are exclusively for the female student. The student is offered a choice of nine programs of studies:

Dressmaking. This program, which can be completed in two years, prepares students for intermediate positions in sewing or clothing fabrication shops. Pre-requisites for admission to the program in dressmaking are either one of the following: three or four year MAVO school education; elementary domestic science school education in the T-department; elementary domestic science school education in the P-department, upon passing an additional examination in some subjects; proof of successful completion of the first three years of a HAVO school or an academic secondary school, or proof of previous education equivalent to the latter.

Fashion Designing. This program is open to students who have successfully completed the dressmaking program at the intermediate domestic science schools, and who may wish to continue their education. The costume designing program can be completed in one year, and its purpose is to train students to a more advanced level than the dressmaking program.

Preparation for Higher Vocational Education. This program, which takes three years to complete, prepares students for entry into higher vocational education in programs for teacher education, infant leading, or assistant chemist. This program is open to girls who have graduated from the T-department of an elementary domestic science school. It is also open to girls with previous education which is the equivalent to that given in the T-department of an elementary domestic science school.

Orientation for the Caring Professions. This program of studies is intended for girls, who have not made a definite choice of occupation,

and who wish to enter the caring professions after completing the program. This program can be completed in one year, and has the same pre-requisites as those for the dressmaking program.

Residential Welfare Worker. This program of studies is for students who wish to find employment as residential welfare workers in senior citizens homes, or similar institutions. It can also be used as preparation for the nurses training program in higher vocational education. The program of studies for residential welfare worker normally takes two years to complete, and has the same admission requirements as those for the dressmaking program.

Child Care. This program of studies trains students for caring occupations in children's homes, chidren's day centres, and so forth. Graduates of this program may continue their education in higher vocational education, to which they have entry into the program of studies for youth leaders. The program in child care takes two years to complete. The pre-requisites for this program are similar to those for the dressmaking program.

General Education Program. This program is intended as a rounding-off of the education for girls in the general and domestic science field, and does not lead to further studies, other than that it gives graduates admission into the program of studies for domestic staff for institutions. The general education program takes one year to complete, and has one of the following pre-requisites: four year MAVO school education; proof of successful completion of the first three years of HAVO school education; or previous education equivalent to either one of these.

Domestic Staff for Institutions. This program, which takes two years to complete, trains students to assume leadership positions as domestic staff of institutions. The pre-requisites for this program are either one of the following: diploma of the general education program in intermediate domestic science education; diploma of any of the academic secondary schools; or diploma of the program for preparation for higher vocational education in intermediate domestic science education.

Assistant Pharmacist. Students who aspire to work as an assistant pharmacist in hospitals, or drug stores, enroll in this program of studies. Upon successful completion of the course, graduates may find employment in hospital pharmacies, or in pharmacies in commercial establishments. To complete the program for assistant pharmacist it takes a maximum of twenty-seven months.

In the Netherlands both pharmacists and assistant pharmacists must take a professional oath before they are permitted to practice. Girls who are in the program for assistant pharmacists must be 18 years of age before they are permitted to write their final examinations.

Other pre-requisites for this program are either one of the following: four year MAVO school education; proof of successful completion of the first three years of HAVO school education; or previous education equivalent to either one of these.

Agricultural Education

The intermediate agricultural schools and intermediate horticultural schools in the Netherlands provide the training for future operators of agricultural or horticultural enterprises. There were 38 intermediate agricultural schools, and 11 intermediate horticultural

schools in the Netherlands in 1972.

Moreover, there are special intermediate agricultural schools that provide training in such specialized fields as: chicken farming; hog farming; or animal husbandry.

There also exist schools for intermediate forestry and agricultural technology. These schools prepare the student to become a specialist in forestry, or in agricultural technology.

Intermediate Agricultural Schools, Intermediate Horticultural Schools, and Intermediate Special Agricultural Schools. In all of these schools two distinct programs of studies are available to the students. The first of these programs takes three years to complete, and is theory oriented. The second program of studies only takes two years to complete and is oriented more toward the practical. The latter program is not as extensive as the former program.

The Three Year Program. Students are admitted to this program who meet either one of the following pre-requisites: four year MAVO school education with mathematics and either one of: physics, chemistry, or biology; previous education equivalent to that of the above; elementary agricultural or horticultural school education; previous education equivalent to that of the above; elementary agricultural or horticultural school education; or elementary technical school education in the T-department, provided it is equivalent to any of the above.

The Two Year Program is open to students who have either one of the following pre-requisites: Three year MAVO school education with mathematics, and either one of: physics, chemistry, or biology;

elementary agricultural or horticultural school education; previous education equivalent to that of a three year MAVO school education; or elementary vocational education of any type.

Intermediate Forestry and Agricultural Technology School. This school provides programs of studies of three years for students who wish to specialize in forestry, or agricultural technology. Entry into the program is open to students who meet either one of the following pre-requisites: four year MAVO school education with mathematics and either one of: physics, chemistry, or biology; or elementary agricultural or horticultural school education.

Part of the education that the students receive in the intermediate agricultural and the intermediate horticultural schools, is field experience. These students spend a minimum of 15 weeks to a maximum of 30 weeks at practical work experience in the student's area of specialization.

Economics and Administrative Education.

Included in intermediate vocational education in the Netherlands are intermediate retail education, and intermediate economics and administrative education.

Intermediate Retail Schools. In this category intermediate tradesmen's schools are usually combined with intermediate retail schools. These schools are intended to prepare students to become operators of medium or small-size businesses. In these schools special attention is devoted to business economics and commercial practice. In addition the students are required to take Dutch and two additional modern foreign languages.

There are 29 intermediate retail schools in the Netherlands. Many of these are located in the larger centres of population. There is, however, one special intermediate retail school, which prepares students for supervisory jobs in the meat trade or the meat processing trade.

Programs of studies at both the intermediate retail schools and the intermediate retail school for the butcher trade take three years to complete.

Entry into all these schools is open to students who have either one of the following pre-requisites: four year MAVO school education; three year MAVO school education, provided an examination in the Dutch language was included in this program; elementary retail school education; or proof of successful completion of the first three years of HAVO school or secondary school for pre-university education.

Intermediate Economics and Administrative Schools. These schools offer programs of studies that prepare students for intermediate positions in the administrative, commercial, managerial, or secretarial fields with industry or government.

After successfully completing the first year, the student chooses from a number of fields of specialization, which include: clerical studies, administrative studies, or secretarial studies. The curriculum in these schools also includes Dutch and two additional modern foreign languages, economics, business administration, statistics, data-processing, shorthand and typing.

These programs take three years to complete. Entry to these programs is open to students who have either one of the following pre-requisites: four year MAVO school education; three year MAVO school education, provided this includes examinations in the Dutch

language and two modern foreign languages; or elementary retail trade school education, combined with the first three years of either HAVO school or secondary school for pre-university education.

In the Netherlands there are a total of 40 schools for intermediate economics and administrative education that are scattered throughout the country.

Teacher Education

Teacher education for nursery school teachers is included in intermediate vocational education. At these schools two distinct programs of studies for nursery school teachers are offered. The A-program provides training for nursery school teachers, and the B-program provides training for nursery school head-mistresses.

Entry into the B-program, which takes one year to complete, is open to those students who have completed the A-program.

The A-program can either be entered in the first year, or in the second year. Students who enter the A-program in the first year require three years to complete the program. Students who enter the second year of the A-program can complete this program in two years.

Students starting the first year of the A-program must have either one of the following pre-requisites: four year MAVO school education; proof of completion of the first three years of either HAVO school education or academic secondary school education; or other previous education at the approval of the Minister of Education and Sciences.

Students entering the second year of the A-program must have either one of the following pre-requisites: HAVO school education,

or academic secondary school education; or other previous education at the approval of the Minister of Education and Sciences.

Most of the 45 schools that offer teacher training programs for nursery school teachers in the Netherlands are located in the major centres of population.

Social-pedagogical education.

Intermediate social-pedagogical education includes courses for family helpers, and courses for sport instructors. Courses for family-helpers prepare the student to assume duties normally performed by the housewife. These courses devote special attention to domestic science, pedagogic and social training. The program of studies for family-helpers can be completed in two years. This includes a number of weekly periods of practical training.

Courses for sport instructors are residential courses. These courses take two years to complete.

Of these programs of studies the following are offered in day-schools: a program for training of family helpers; a program for training of sport leaders; and a program for training occupational therapists.

Besides these programs that are offered in day-schools, there are a number of programs of studies offered in part-time schools. These part-time school programs include: a three year program for social workers which is offered in three schools; and a three year program for welfare workers for institutions. The latter is offered in fifteen schools in the nation.

Programs in these part-time schools are offered for the benefit of employed persons; they therefore fall outside the scope of this study.

Family Helper. This program can be completed in either 18 or 24 months, and is used to train students for work in institutions providing family help.

Entry into the two year course is open to students who have either one of the following pre-requisites: three year or four year MAVO school education; elementary domestic science education in the T-department; elementary domestic science education in the P-department, provided the marks obtained in the Dutch language and in mathematics are passing marks; or proof of successful completion of the first three years of HAVO school education or academic secondary school education.

The 18 month course for family helpers may be entered by students who have attained the age of 18, and who meet either one of the following pre-requisites: proof of having been employed as a family helper for at least three months; or proof of having done domestic work for at least one year.

Additional entry requirements, other than educational, for any program for family helper are that the student must be in good health and have passed a medical examination. The program for family helper is taught in 17 schools in various locations of the nation.

Sport Leaders. This program is offered in three schools, and trains students for sport leading positions with sport clubs and sport associations, as well as with municipalities, police forces, fire brigades, swimming pools, penitentiaries, or psychiatric institutions.

Entry into this two and a half year program is open to students who are medically fit, and who have at least four year MAVO school

education, or its equivalent. There is an admission committee that investigates the students' athletic background.

Occupational Therapists. This program is offered in two intermediate social-pedagogical schools. Students in this program of studies are taught to work with patients in hospitals, mental institutions, nursing homes, or with occupants of senior citizens homes.

Entry into this program, which takes two years to complete, is open to students who have completed a four year MAVO school education, or its equivalent. In some cases students, who do not have these minimum pre-requisites, may be admitted following an investigation by an acceptance commission. The acceptance commission also administers an aptitude test, which all candidates must pass.

HIGHER VOCATIONAL EDUCATION

In the Netherlands, higher vocational education is included under tertiary education; it, therefore, falls beyond the realm of this study. Nevertheless, for the benefit of the reader, a short description of the choice of professions and occupations available to students of higher vocational education in the Netherlands will be presented.

Technical education and nautical education. Higher technical education is offered at higher technical schools or colleges that offer specialization courses in architecture; mechanical engineering; electrical engineering; civil engineering and chemical engineering. Some colleges offer programs in naval architecture; aeronautical engineering, applied physics, or applied mechanics. Course work at these institutions can be completed in four years. A portion of this time includes

a period of practical work in industry, which is normally during the student's third year.

Some technical colleges offer graduates advanced courses in specialized areas.

Higher nautical education provides training for mates, ship's engineers and radio officers for the merchant marine.

Higher technical education also includes colleges where students are prepared either for the textile industry or for the ready-made clothing industry. Courses in these colleges take four years to complete.

Laboratory technicians training colleges are also included under higher technical training. At these colleges two-year courses are offered in the following five departments: medicine, physics, chemistry, zoology, and botany.

Domestic Science Education. In this category is found the higher vocational education of dieticians. The schools offering these programs prepare students to become assistant-dieticians. Students enrolled in these programs can complete their courses in three years. These schools also offer a course that takes the student an additional year to complete. This additional course prepares the student to become a fully-qualified dietician.

Agricultural Education. Higher agricultural colleges offer programs of studies in the following subjexts: agriculture, tropical and sub-tropical agriculture, horticulture, agricultural technology, forestry, and land development. Most of these programs take four years to complete. However, the program in agriculture is the only one that takes three years to complete.

Economics and Administrative Education. In this category of higher vocational education the following colleges are included:

Catering colleges, preparing students for management of hotels, restaurants, and cafes. The program of studies at the catering colleges takes three years to complete.

Commercial colleges offer programs of studies in business administration, commerce, and economic laws. Students can complete these programs in three years.

Training courses for senior officials in the tourist industry are also included under higher vocational education. A student can register in one of the following programs: outgoing tourism, incoming tourism or recreation. Each of these programs takes two years to complete.

Social-Pedagogical Education. Higher social-pedagogical education is offered in a wide variety of programs of studies at the following institutions:

Social academies, prepare the students for various professions that involve the giving of social or spiritual guidance. These courses take four years to complete.

Training schools for youth leaders, offer programs that prepare the student to work in educational institutions for early school-leavers, or for adult education institutions. Students can complete these programs in three years.

Advanced nursing courses, are offered to certified nurses with several years experience, who wish to qualify for senior positions in hospitals or public health institutions, or as teachers in nurses training courses.

Librarianship and documentation schools, are intended for training students for senior positions in libraries, or for senior positions in the book-selling and in the publishing business. The courses in these schools can be completed in three years.

Academy for word and gesture, offers courses that prepare students to become instructors in schools and clubs. These programs can be completed in four years.

School of journalism, provides a general preparation in the social and cultural field, as well as training those students who wish to make journalism their profession. A student enrolled in a school of journalism can complete the program of studies in three years.

Academy for educational and vocational guidance, which provides training courses for students who wish to become educational or vocational guidance cousellors.

All of these institutions offer, in addition to full-time programs, part-time courses of general or more specialized nature for those working in the various professions. Some of these courses are at the more advanced level.

Art Education. Training in the fine arts is offered at the following higher vocational education institutions:

Academies of fine arts, offer programs of studies in the visual arts.

Conservatories of music and schools of music, offer programs of studies in music.

Schools of drama and dancing, offer programs of studies in drama and dancing.

The Netherlands Film Academy, prepares students for careers in the film industry.

Academies of architecture, provide advanced training for established architects.

Teacher Education. Teacher training institutions provide students with training to become either an elementary school teacher or a secondary school teacher.

SUMMARY

This chapter has dealt with the variety of programs of studies available to the students in elementary vocational education and in intermediate vocational education in the Netherlands. It briefly outlined the method employed in the Netherlands to stream pupils who have completed their elementary education into elementary vocational education programs of studies or schools.

An outline of the procedures that are followed in apprenticing graduates of elementary vocational schools was presented as part of the content of this chapter.

This chapter further reported on the normal time required to complete the numerous programs of studies available to the students enrolled in the vocational secondary schools in the Netherlands. Where appropriate, the possibilities for employment available to graduates of vocational education programs of studies were outlined.

In this chapter it was also reported that the Ministry of Education and Sciences of the Netherlands introduced a change in 1973, whereby all elementary vocational education was increased to four year programs of studies, where this was not already the case. This change was adopted

at the onset of the 1973/74 school year. The decision to make all elementary vocational education a uniform four year process, may --in part-- result from the universal trend to keep students in schools for as long as possible.

The following chapter will be devoted to the reporting on the interviews the researcher was granted by officials of the Ministry of Education and Sciences responsible for vocational education, vocational education inspectors of the Ministry, vocational school administrators and teachers, during his visit to the Netherlands in the summer of 1973.

CHAPTER IV

DATA COLLECTION AND ANALYSIS

Introduction

For the purpose of gathering data for this research study, the researcher made a site visit to the Netherlands during the summer of 1973 to conduct interviews with the various participants. In addition to conducting the interviews, a quantity of printed information on the topic of vocational education, since the enactment of the new Secondary Education Act (1968), was collected.

During the site visit interviews were arranged with the following participants: an official of the Ministry of Education and Sciences who is responsible to the Ministry for vocational education; two inspectors of vocational education from the Ministry's Inspection Branch; as well as a number of administrators and teachers of vocational education in vocational secondary schools.

To structure these interviews an interview schedule had been designed. Appendix I, page 102, contains a copy of the interview schedule in both the English version and the Dutch translation.

The questions on the interview schedule were divided into five discrete categories. These five categories were:

1. Questions pertaining to the structure of vocational education;
2. Questions pertaining to the organization of vocational education;
3. Questions pertaining to counselling and guidance in vocational schools;
4. Questions pertaining to the prestige and position of vocational

education relative to academic education in the Netherlands, and

5. Questions pertaining to the accountability of vocational education.

The questions in the first two categories --those pertaining to the structure and organization of vocational education-- were directed at officials of the Ministry of Education and Sciences, and at inspectors of vocational education of the Ministry. The questions in the latter three categories were designed to elicit information from only administrators and teachers in vocational education schools.

Design of the Interview Schedule

A library research was made of resource literature to assist in the design of the research instrument as well as in formulating the questions that were to be an integral part of the instrument. Each of the questions that was written was placed in one of the five major categories.

The interview schedule in its original form was written in English and placed in the hands of the chairman of the Department of Industrial and Vocational Education for review and criticism. This procedure was followed to determine if the questions that had been formulated were easily understood; if each question was properly phrased to fully communicate its intent to an interviewee; and if the questions of the research instrument would have to be revised before being used in the major investigation.

From this review there were minor modifications made to a number of the questions on the interview schedule. Many of the modifications that were made involved a change in the verb tense to clarify the intent of the question.

Because the instrument was to be used with Dutch speaking participants, it was translated by the researcher into Dutch. To verify the accuracy of the translated version of the research instrument it was sent to the Berlitz School of Languages (Calgary) for back-translation. Correspondence from Berlitz indicated that the translation was accurate. Both the English version and the Dutch version of the research instrument can be found in Appendix I, page 102.

The reactions of participants to questions on the research instrument were tape recorded, and hand written notes also were made during each interview. The tape recordings that were made during the interviews were later subjected to a linguistic analysis for pertinent comments related to the study. The hand written notes also were analyzed to identify supporting comments made by the participants to questions they responded to on the research instrument. The more significant comments that were made by the participants are included in the subsequent sections of this chapter.

Conducting the interviews

During the summer of 1973 an on site visit was made to the Netherlands to interview the four groups that made up the population for this study. These visits were made to the following cities: Amsterdam, Rotterdam, and Weesp. The schools that were visited in each of these cities are listed in Appendix III, page 137.

Following a brief introduction to the participants, the researcher explained the objectives of the study and its purpose and the role that the participants would have in the study. A copy of the research instrument was placed in the hands of the participant who was then asked to read it over carefully. When the participant indicated

that he had read the instrument and was ready to respond to the questions, permission was asked for the researcher to use the tape recorder to record the responses made by the participant. This permission was readily granted in all instances.

Following the interview with the official of the Ministry of Education and Sciences, it became evident that the questions directed at vocational guidance and counselling were not relevant in the Netherlands. For this reason these questions were eliminiated from subsequent interviews.

The main reason why questions on vocational guidance were eliminated from the research was that in Dutch schools guidance counsellors are not employed by the various school jurisdictions to provide guidance for students who may have personal or educational problems. As a consequence, Dutch students are not provided with the services of a guidance counsellor to give them advice or assistance in planning educational or vocational programs, or in seeking assistance to a personal problem.

Should a student need the advice of a guidance counsellor, this adivce must be sought outside the school at an expense to the family.

INTERVIEW RESULTS

The Structure of Vocational Education in the Netherlands

Traditionally the structure of education in the Netherlands has been quite rigid. Programs of studies in the various types of secondary education were available only to students who acquired the necessary level of passing marks in elementary education, and who, in the opinion of the administrators and the staff of that elementary

school, possessed the required aptitude and ability for further education.

In each secondary school year the student had to take and pass a rigidly prescribed set of courses. Should the student fail to pass a number of these courses, the student was failed. Should the student fail, he was required to repeat the entire year. This meant that the student had to repeat not only the courses that were failed, but also those that were passed.

In the grammar schools, failing to pass from one grade to the next was permitted each student once in his entire grammar school career. If a student failed grammar school twice, the student was dismissed from that school as well as from that type of secondary education. In such a case the student could only seek alternative education at a lower level.

University education was available only to graduates of the modern or classic grammar schools. Graduates of other secondary schools were not permitted to enroll in unversity, unless they first completed grammar school. To do so they would have to take night school courses.

One of the five discrete categories of the research instrument dealt with questions that pertained to the structure of vocational education.

Ministry of Education and Sciences Official.

One of the groups that made up the population of this study was an official of the Ministry of Education and Sciences. In responding to questions on the research instrument directed at the structure of

vocational education the following comments were made:

The new Act on Secondary Education (1968) has opened the door for more flexibility in the educational system. Students can now progress from elementary vocational education through intermediate vocational education to higher vocational education, and hence even to university education (See chart 1, page 20).

The criteria that are used to determine if a student is admissible to a higher level of education or to an institution of higher learning, are the student's passing marks in his last year of previous education.

Once a student has enrolled in a program of studies in one occupational field there are possibilities for him to transfer to other related fields. Sometimes, the earlier years of education in a program of studies have been designed specifically to provide the student with a broad basis of experiences to enable him to transfer to another related field without too much trouble. This transfer was made possible should the student discover that the field he originally chose was not to his liking.

After a student has enrolled in a program of studies at a particular level of vocational education, there is a rigidly prescribed set of courses in which he must enroll.

At the end of his career in a vocational school the student must write a school leaving examination. These school leaving examinations are State examinations, and are uniform for one specific program of studies. At all schools in the nation that offer that particular program of studies the school leaving examinations are written simultaneously.

Although the new Act on Secondary Education (1969) provides for the possibility of the creation of "Comprehensive" schools, the researcher was informed that at the time of the study no comprehensive schools had been founded or planned.

Vocational Education Inspectors

Two inspectors for vocational education of the Inspection Branch of the Ministry of Education and Sciences were involved in the study. The comments made by these participants regarding the structure of vocational education in the Netherlands corresponded very closely with those given by the official of the Ministry of Education and Sciences.

Some of the more significant comments made by these participants follow:

Although this was not part of the design of the new Act on Secondary Education (1968), in practice differences in the transitional year occur between elementary vocational education programs and other secondary education programs of studies. As a result it was felt that students in elementary vocational education in the transitional year are offered general education courses of a simpler, less advanced nature than --for instance-- students enrolled in academic secondary education.

Students enrolled in pre-university education, or in general education programs of studies, cannot include vocational courses in their program of studies, but are obligated to adhere strictly to the prescribed courses that make up their programs. It would practically be impossible for these students to take vocational education courses

in any case, since vocational schools are located in separate school buildings, and are not combined with academic schools under one roof.

Every student who is enrolled in a vocational program of studies of a technical nature is obligated to take technical drafting courses as part of his program of studies.

The Organization of Vocational Education

The questions of the research instrument that dealt with the organization of vocational education were directed mainly to the official of the Ministry of Education and Sciences, and to the two inspectors of vocational education of the Ministry. Comments that were made by these individuals on the organization of vocational education make up the next section of this chapter.

Ministry of Education and Sciences Official

In the Netherlands all responsibilities for education rest with the State, according to the Constitution. Therefore, all decisions regarding programs of studies, curricula, and course contents for vocational education programs of studies that are offered at each of the three levels of vocational education, are made by the Ministry of Education and Sciences, the Government's body responsible for education.

Schools of any type in the Netherlands may be founded by so-called "Schoolverenigingen" or "Scholengemeenschappen" (School Associations). School associations may consist of groups of individuals who feel a common need for education of a particular type exists in an area, city, or township, and so forth. The founding of a school that a school association proposes to establish must be approved by

the Ministry of Education and Sciences, providing the school association demonstrates the need for that school in the area to the satisfaction of the Ministry.

In many cases school associations are formed by cities, or villages. Schools that have been founded and are operated by such city or village associations, are referred to as city schools or village schools.

Some school associations have been started by religious groups. Consequently, a number of schools are classified as Roman Catholic schools, or Dutch Reformed schools, and so forth.

A number of vocational schools in the nation have resulted from the co-operation of industrial management and labour organizations. These schools were established when these groups felt the need for a school that could produce workers to meet the needs of local industry or trade.

Once the Ministry of Education and Sciences has granted its permission for the founding of a school, all costs for building, maintaining and running the school are borne by the State out of State funds.

Vocational Education Inspectors

Comments made by the inspectors of vocational education from the Inspection Branch of the Ministry of Education and Sciences regarding the organization of vocational education were these:

These officials pointed out that the Inspection Branch of the Ministry of Education and Sciences is responsible for the quality of all education.

Among the seven sections of the Inspection Branch, one particular section is responsible for all vocational education schools, regardless of the affiliation (See chart 2, page 27).

Newly founded schools have, from their onset, been designated as schools that will offer existing programs of studies that have been found acceptable to the Ministry of Education and Sciences. In such cases these schools are required to adopt and to adhere to the courses and the standards which are prescribed for all schools of that particular type in the nation.

Nevertheless, from time to time, as a result of new technological developments in the world of work, vocational schools may be founded that are designated to offer new programs of studies. In such cases the Ministry of Education and Sciences and its Inspection Branch may depend on industry to make recommendations to it with regard to these new programs of studies, course content and level of the courses that are to be offered in these schools. The Ministry may turn to industry with regard to the kinds of standards to be adopted by these schools.

The harbour schools in Rotterdam and Amsterdam are examples of schools that were established because of the co-operation between the Ministry of Education and Sciences and industry.

Industry may also make recommendations for changes in existing programs of studies that are taught in vocational education schools. This procedure is followed to keep those programs of studies in step with technological changes that have occurred in the world of work.

Another body which has an influence on vocational education in the Netherlands is the Apprenticeship System. This body was organized and is regulated by the Apprenticeship Act (last amended in 1968).

Personnel of the Apprenticeship System work in close co-operation with those of the educational system. The major influence of the Apprenticeship System is in matters concerning course content.

Counselling and Guidance in Vocational Schools

The questions on the interview schedule that were directed at counselling and guidance were intended to be used with both the administrators and teachers of vocational schools. However, during the interview with the official of the Ministry of Education and Sciences it became clear that these questions had no relevancy in the Netherlands, and they were therefore eliminated from the research instrument.

Administrators and teachers of vocational schools who partipated in the study provided the following information on the topic of streaming of students in the educational system of the Netherlands.

Streaming of Dutch elementary school graduates into the various avenues of secondary education is accomplished on the recommendations of the administrators and the staff of the elementary school where the student completed his last year of elementary education.

On the strength of the student's elementary school record and of his talents displayed during his elementary school career, the administrators and staff of the elementary school that the student attended last will recommend to the student and his parents that the student enroll in a specific school or program of studies in secondary education.

Reportedly there is a certain amount of flexibility in the vocational education programs. Students enrolled in vocational

education programs can change from one trade or occupation to another trade or occupation, after they are enrolled in vocational education. However, this change seems to be generally easier to accomplish when it concerns programs of studies that are offered in one and the same school, particularly in the earlier years of enrollment in the program.

For instance, a student who is enrolled in a general woodwork program in an elementary technical school, may be allowed to transfer to the general metalwork program in that same school, providing this transfer is made in the early stages of the students' enrollment in that school. Later on, the change may become increasingly difficult to make. For the same student to transfer from that elementary technical school to another elementary vocational school --say for instance an elementary retail school-- would be difficult to arrange, as it would require the student to start his secondary education anew.

Only in the case of the elementary agricultural schools and the elementary horticultural schools, can the students easily transfer to elementary technical schools.

Because schools in the Netherlands do not employ guidance counsellors, there are no follow-up studies conducted of graduates in order to record their success or failure in the world of work.

Prestige and Position of Vocational Education

In many countries in the world vocational education has been traditionally ranked as inferior to general or academic education. On this topic Gregoire (1967) wrote:

> Even to-day, the vocational education given in high schools, unlike other branches, is essentially practical and terminal in the sense that it does not normally lead to higher studies. The most serious

> consequence of this separation is the discredit it throws upon vocational education. Because it is not equivalent in value to normal secondary education and does not carry the same possibility of going on to higher education, it is not found attractive. Too often it is taken up because the student has failed or is backward. It has even been said in several countries that it was generally designed for the "rejects" of the education system. This view is grossly exaggerated; the "rejects" are the young people who enter active life without equipment of any kind. There is nevertheless a large element of truth in it. (pp.35, 36).

The questions on the research instruments that pertained to the prestige and position of vocational education relative to academic education in the Netherlands were mainly directed at administrators and teachers of vocational education schools. However, the official of the Ministry of Education and Sciences, and the inspectors of vocational education of the Inspection Branch made comments on this topic.

On this issue the following comments were made by the officials of the Ministry, and by the administrators and the teachers of vocational education schools:

Ministry of Education and Sciences Officials

Vocational education in the Netherlands should enjoy a rather high status with industry and labour, as it supplies the majority of new workers.

Teachers' salaries are set by the Federal Government. The level of all teachers' salaries --including those of vocational teachers-- depends on the amount of teacher training education, and on the diplomas that the individual has achieved. Teachers' salaries are not influenced by the number of years of working experience of the individual.

There are no differences in teacher training between vocational teachers and teachers in the other branches of secondary education, other than the training for specialization in their own subject.

There are no different limits on the kinds of positions that can be reached by members of either group; teachers of general or academic secondary education can become principals in their schools; likewise, vocational teachers can become principals in vocational education schools.

In the eyes of the general public, vocational education has a lower status than general or academic education.

Administrators and Teachers of Vocational Schools

Vocational education is very well received by industry, and it enjoys a high status with labour.

However, in the eyes of the public at large, vocational education is inferior to general education or academic education. Most families would rather see their children enroll in general or academic secondary schools, rather than in vocational education schools.

Teachers of general education or academic education schools feel superior over vocational school teachers; this aggravates the adverse condition.

There does not seem to exist too much animosity between vocational school students and their counterparts in schools for general or academic education.

Accountability of Vocational Education

Questions regarding the accountability of vocational education in

the Netherlands elicited the following comments from the participants in this study:

Ministry of Education and Sciences Official

The yearly per-pupil costs of vocational education are higher than those of general education and academic education. (However, the researcher felt there was reluctance to disclose actual per-pupil costs in either type of education; consequently, this matter was not persued any further).

Vocational Education Inspectors

There are no rigidly prescribed teacher-pupil ratios in either general, academic, or vocational education.

Teacher-pupil ratios may vary from school to school, and they depend largely on the size of the school, and on the student enrollment.

The Inspection Branch of the Ministry of Education and Sciences is responsible for the quality of all education in the country. Inspectors from the vocational education section of the Inspection Branch visit vocational schools at intervals for inspection purposes.

The State finances all education in the Netherlands. Therefore all expenditures of funds allocated for any program of studies in all divisions of education must be approved by the Ministry of Education and Sciences.

In the Netherlands there are no special provisions made to keep vocational teachers abreast of technological changes that occur due to new developments in industry. Neither are there any external pressures applied to vocational teachers in order to force them to

take courses for the purpose of updating their occupational knowledge.

Moreover, updating courses for vocational teachers are never organized by the Ministry of Education and Sciences, but rather by industry.

Administrators and Teachers of Vocational Schools

No teacher-pupil ratios are prescribed for vocational schools. Vocational school classes may have enrollments of up to 30 or 31 students, even in workshop classes.

Vocational teachers are accountable to their school's administration.

There are no pressures brought to bear on vocational teachers in order to make them take updating courses to keep them abreast of new developments in their trade or occupation. Any decisions to enroll in such updating courses must come from the individual himself.

Industry occasionally organizes updating courses, often during the summer holidays, that vocational teachers may attend. If enrollment costs for such courses occur, they must be borne by the teachers themselves.

SUMMARY

In this chapter the methods that were employed to collect data for this research study were discussed in detail.

The site visits that were made to gather information were also presented.

A quantity of books, pamphlets, and articles on the topic of vocational education in the Netherlands since the enactment of the new Act on Secondary Education (1968) was collected during the site visits.

To supplement this bibliographical information, interviews were held with officials of the Ministry of Education and Sciences, with vocational school administrators and teachers. These interviews which took place in the Netherlands in 1973, were conducted with the aid of an Interview Schedule which had previously been prepared specifically for the research and a tape recorder.

The method used to prepare the Interview Schedule, as well as its translation into Dutch, was also discussed in this chapter.

The information that was recorded in this chapter under the heading "Interview Results", was divided into the five discrete categories that paralleled the questions on the Interview Schedule. These five categories of questions were grouped under the following headings:

1. The structure of vocational education;
2. the organization of vocational education;
3. counselling and guidance in vocational schools;
4. the prestige and position of vocational education relative to academic education; and
5. the accountability of vocational education.

In the ensuing and final chapter a summary of this research study will be presented, as well as a description of vocational education in the Netherlands since 1968.

CHAPTER V

BACKGROUND, SUMMARY, A DESCRIPTION OF VOCATIONAL EDUCATION IN THE NETHERLANDS SINCE 1968

Background of the Study

From library research on the topic of vocational education in the Netherlands it was found that there was no information on this subject available in any of the libraries at the universities in Alberta. Because of this lack of information, it was felt that a descriptive study of vocational education in the Netherlands could provide researchers in Alberta with a knowledge base on vocational education in that country.

Summary

The major purpose of the study was to give a description of vocational education in the secondary schools in the Netherlands, after the adoption of that country's new Act on Secondary Education in 1968. This new Act introduced a number of changes in the organization and in the structure of secondary education in the Netherlands.

The minor objectives of the study were: to determine what changes were brought about in vocational education in the Netherlands by the new Act on Secondary Education (1968); to determine the structure and organization of vocational education in the Netherlands since the new Act became operative; and to determine what vocational education programs are offered in the secondary schools in the Netherlands since the new Act was adopted in 1968.

The study was limited to an analysis of vocational education in the secondary schools of the Netherlands. It was also limited to

vocational education offered in these schools since the new Act on Secondary Education became effective in 1968. The study was further limited to information that had been published by Dutch writers on the topic of vocational education, and to responses made by participants in the study to questions on the Interview Schedule.

The major information source for this investigation was bibliographical data, which was supplemented by information that was gathered from interviews with personnel of the Ministry of Education and Sciences, inspectors for vocational education of the Ministry, vocational school administrators, and vocational education teachers.

An interview schedule was designed to structure the interviews with participants of the study. After review of this interview schedule by the Chairman of the Department of Industrial and Vocational Education, and minor revisions that resulted from this, the research instrument was translated from its original English version into Dutch.

The Dutch version of the interview schedule was back-translated into English by the Berlitz School of Languages (Calgary) to verify its accuracy. The accuracy of the translation was accepted by this Agency.

The questions on the interview schedule were grouped according to: the structure of vocational education; the organization of vocational education; counselling and guidance in vocational schools; the prestige and position of vocational education relative to academic education; and the accountability of vocational education.

Questions directed at the structure of vocational education, and those pertaining to the organization of vocational education were asked only of the official of the Ministry of Education and Sciences

and of the inspectors for vocational education of the Ministry. The questions under the remaining headings, with the exception of those on guidance and counselling, were asked of administrators and teachers of vocational education.

During the interview with the official of the Ministry of Education and Sciences, it became apparent that counselling and guidance in vocational schools in the Netherlands was not existant, because Dutch schools or school systems do not employ guidance counsellors. Because of this, the section of the research instrument dealing with guidance was eliminated from the instrument.

A Description of Vocational Education in the Netherlands after 1968

In the Netherlands, during the period following the Second World War, the need for a change in its educational system became more and more apparent. This need for change was generated by problems that educators were faced with, problems such as: an increased demand for education beyond the elementary school level; the desirability for changes in curricula in order to bring education in line with the changed needs of the students, and with the needs of modern society in which they were living and would work; and a change in the educational philosophies that relfect the contemporary world of the last half of the twentieth century.

Under these societal pressures the Government of the Netherlands in 1963 enacted the new Act on Secondary Education, which became operational at the onset of the 1968 school year.

The new Act, brought about radical changes in curricula, in streaming of students into the various avenues of secondary education,

and in evaluation systems in the secondary schools in the Netherlands.

The new Act, although it does not specifically define the term "vocational education," consolidated the responsibility for commercial schools, and schools of fine arts under the aegis of the Ministry of Education and Sciences. Prior to the passage of the new Act, these types of schools had been the responsibility of other Departments of the Federal Government.

Soon after its enactment the new Act on Secondary Education became known as the "Mammoth Act," because not only did it place additional schools under the purview of the Ministry of Education and Sciences, it re-organized the methods of teaching in mathematics, and the methods of teaching of foreign languages in the secondary schools of the country. The Act also influenced a drastic change in the examination techniques used by the teachers in the schools of the Netherlands, when objective tests became the predominant means of evaluating a student's performance instead of the former subjective tests that were used to evaluate students' performances.

Other educational changes that were introduced by the new Act were: the aims of education were re-formulated from an analysis of education and society in order to define the role education must play in the changes and improvements that society required; the links between the various schools in the education system of the Netherlands were improved and safeguarded; and provision was made for the future establishment of "integrated comprehensive" secondary schools.

Establishment of Dutch Schools

Dutch schools are established as a result of the actions of

school associations. These school associations can be founded by any group of citizens regardless of their affiliation with a labour or religious group, who feel a common need for the establishment of a school or schools. If a school association can provide the Ministry of Education and Sciences with sufficient documentation to prove that a need exists for the founding of a certain type of school in a city, community, village, or area, then the Ministry may grant its sanction for the founding of that school.

School associations often are cities, communities, or villages; consequently, many schools are city schools, or village schools, and so forth.

Some school associations are established by religious groups, and the schools that have been started and are operated by these religious school associations are Roman Catholic schools, or Dutch Reformed schools, etc. The number of Dutch schools that were established by the various religious denominations is numerous indeed, and would be a special study in itself.

Sometimes school associations are established as a result of co-operation between management and labour in industry. In other cases school associations were started through co-operative efforts of industry and cities. The harbour school in Rotterdam is an example of a school that was established by the co-operation between the city and the harbour industries in the Port of Rotterdam.

Financing of Education

Financing of education, whether it be at the elementary, secondary, or tertiary level, is out of State funds. Since there are no

school taxes in the Netherlands, the funds required for education are drawn from the overall income of the State from all tax sources.

Elementary Education and Streaming

Under the new Act on Secondary Education (1968) elementary education in the Netherlands is for six years.

At the age of six students may enter elementary education.

Following successful completion of six years of elementary education, Dutch students are streamed into either one of the following streams of secondary education: academic education; general education; or elementary vocational education.

The first year of secondary education of each of these three streams is a transitional year. Theoretically, during this transitional year the educational program is the same for all of the students enrolled in secondary education, regardless of the stream (See chapter II, page 19; also chart 1, page 20).

Included in secondary education is a second level of vocational education which is referred to as intermediate vocational education. Entry into intermediate vocational schools is open to graduates of elementary vocational schools, as well as to graduates of three or four year general education schools.

Elementary Vocational Education

The type of secondary education that the student is streamed into is determined by his aptitudes and the grades that he achieved in elementary school, and the recommendations of the elementary school principal and his staff.

Elementary vocational education offers the students a choice of

a program of studies in any one of the following four major fields: technical education, including nautical education; domestic science education; agricultural education; and economics and administrative education.

In elementary technical schools programs of studies are offered in the building trades (carpentry, bricklaying, and concrete work), in metalwork (machinist and welder), and in food services trades (baker, and cook).

Elementary nautical schools provide education for sea-fishermen; able-bodied seamen for the merchant marine; inland navigation (personnel of barges); and stevedores (dockworkers).

Elementary domestic science schools, which are exclusively for female students, offer education in courses such as health care, home-making, care of clothing, nutrition, needlework, and general education.

Elementary agricultural schools offer programs of studies in agriculture, horticulture, forestry, and agricultural technology.

Elementary economics and administrative education is offered in elementary retail schools and in elementary commercial schools. Elementary retail schools offer programs of studies that are specifically directed at the retail trade, through subjects such as: business economics, bookkeeping, commercial organization, legal knowledge, sales techniques, window displays, advertising, and so forth. Elementary commercial schools prepare students with basic aptitudes for theoretical learning for simple work of a clerical or commercial nature.

All elementary vocational education programs in the Netherlands take four years to complete. Some of the graduates of the elementary vocational schools continue their training in the Apprenticeship

System. The remaining graduates of elementary vocational education enroll in the next level of vocational education, which is intermediate vocational education.

Intermediate Vocational Education

In intermediate vocational education the same four major fields that are offered in elementary vocational education are studied in greater depth. In addition to these four fields intermediate vocational education offers two additional programs of studies: one in nursery school teacher education, and the other in social-pedagogical education.

There are 36 different programs of studies available to students in intermediate technical schools, ranging from mechanical technology to instrument making. A complete list of the programs of studies that are offered in these schools is included in appendix II on page 135.

Intermediate nautical schools offer training programs for mates and engineers of coastal trading vessels, and for mates and engineers of sea-fisheries vessels.

Intermediate domestic science schools offer female students programs of studies in the following occupational areas: dressmaking; costume designing; preparation for higher vocational education; orientation for the caring professions; residential welfare workers; child care; general education; domestic staff for institutions; and assistant pharmacist.

Intermediate agricultural schools offer more advanced training in agriculture, horticulture, forestry, and agricultural technology. In addition, some intermediate agricultural schools offer programs of studies that provide training in such specialized fields as: hog farming; chicken farming; and animal husbandry.

In intermediate economics and administrative education, intermediate retail schools and intermediate economics and administrative schools exist.

Intermediate retail schools offer programs of studies that prepare students to become independent operators of retail stores. Other programs in these schools prepare students for supervisory jobs in either the meat trade or in the meat processing trade.

Intermediate economics and administrative schools offer programs of studies that prepare students for intermediate positions in administrative, managerial, or secretarial fields with industry or government.

Programs of studies offered at the schools for nursery teacher education prepare students to become nursery school teachers or nursery school head mistresses.

Social-pedagogical education, the last field of intermediate vocational education, offers programs of studies that train the students as a family helper, as a sport leader, or as an occupational therapist.

Students who enroll in intermediate vocational education generally do this at the age of fifteen or sixteen. Depending on the program of studies that a student enrolls in, an intermediate vocational education program may take two, three, or four years to complete.

Graduates of intermediate vocational education schools may either enter the world of work, or they may choose to further their training in higher vocational education.

Higher Vocational Education

Higher vocational education is the third level of vocational education in the Netherlands. Higher vocational education is rated as tertiary education. At this level of vocational education the programs of studies are more advanced than those that are offered at the intermediate vocational education level. Two additional fields of study are offered: one in art education, and the other in teacher training.

Graduates of higher vocational education have the necessary qualifications for entry into university, if they wish to continue their education. Those who make this decision enter the university above the sophomore year.

The Prestige of Vocational Education

Vocational education schools are never combined with academic or general education schools. In the peer group there is little animosity between the students of vocational education schools and those who are enrolled in either general or academic education schools.

Vocational education teachers who were interviewed were of the opinion that vocational education has a lower status in the eye of the general public than general education or academic education.

Vocational education in the Netherlands seems to be accepted and apparently it is well received by industry, because many of the young workers enter industry from either vocational education, or through the apprenticeship system.

The Apprenticeship System

The apprenticeship system is regulated by the Apprenticeship Act. Although the researcher was not able to establish when the

Apprenticeship Act was initially passed, it was last amended in 1968.

The apprenticeship system is also under the purview of the Ministry of Education and Sciences. Consequently, because the Ministry of Education and Sciences has responsibility for both vocational education and the system of apprenticeship, there is close articulation between the apprenticeship system and vocational education.

One of the obligations of apprentices under the Apprenticeship Act is that indentured apprentices are obligated to take part-time theory courses related to their occupational field, while serving an apprenticeship. These part-time courses for apprentices are offered at vocational schools. Indentured apprentices who attend these courses, do so on their employer's time.

The apprenticeship system in the Netherlands is established for many occupations, where such training is required. There are many Dutch educators who consider this system to be incomplete, because they are of the opinion that the system should be expanded to include those occupations that are presently not covered by the apprenticeship system.

At the time of the study all of the technical occupations were apprenticable, but some apprenticeship training also existed in the agricultural education sector and (for girls) in the field of domestic occupations. Planning was underway to extend the apprenticeship system to occupations for office workers.

The Ministry of Education and Sciences

According to the Dutch Constitution all education is the responsibility of the State. Education is supported by State tax funds.

The Ministry of Education and Sciences, a body of the Federal Government, has control over all levels of education. For the purpose of inspection of elementary, secondary, and tertiary education schools in the nation, the Ministry has an Inspection Branch, which has that responsibility.

The Inspection Branch has seven divisions, each one of which is responsible for one of the avenues of education. One of these seven divisions of the Inspection Branch is the vocational education division. The vocational education division is responsible for the quality of all vocational education. Another division of the Inspection Branch is the apprenticeship division (See chart 2, page 27.).

Dutch Vocational Education Schools

Vocational education schools that were visited had well designed physical plants. A number of these schools were not older than a decade; these schools were located in ultra-modern school buildings with spacious, well-lit rooms, halls, and cafeterias. Machines and equipment in the vocational eduation schools were of the latest design, well maintained, and kept in operable condition.

Vocational education classrooms and shops were well supplied with models and instructional media to support instruction.

Administrators and teachers who administer and teach in vocational education schools, take pride in their profession, and because of their trade background and pedagogical training, are making a contribution to Dutch education.

Researcher's Observations

Regarding the fact that Dutch schools do not employ guidance counsellors, when informed that these support personnel are employed

in the schools of Alberta, vocational education school administrators and teachers who participated in the study, expressed their envy for the Alberta system of guidance. They felt that because of this system the student could have the benefit of counselling or advice at almost any time during the school day.

It is evident from the information presented in the previous chapters of this report that there are a wide variety of programs of studies, for a wide choice of occupations that are available to the Dutch students who are enrolled in vocational education.

Under the Secondary Education Act of 1968 it would appear that the educational system of the Netherlands has achieved a balance between the three divisions of secondary education: academic education, general education, and vocational education.

BIBLIOGRAPHY

BIBLIOGRAPHY

BOOKS

Beauchamp, G. A., "Curriculum Theory Applied to Urban Schools," Article, Short, E.C. and Marconnit, G. D. (editors, Contemporary Thought on Public School Curriculum, Dubuque, Iowa, Wm. C. Brown Company, 1968.

Evans, Rupert N., Foundations of Vocational Education, Columbus, Ohio, Charles E. Merrill Publishing Company, 1971.

Fabius, F. J. W., Vocational Training in the Netherlands, Amsterdam, N.V. Grafische Industrie HABO, 1966.

Goote, M., The Kingdom of the Netherlands, Facts and Figures, Ministry of Foreign Affairs (editors), The Hague, Government Printing Office, 1970/1971.

Goote, M., Onderwijs en Wetenschappen in Nederland (Education and Sciences in the Netherlands), The Hague, Government Printing Office, 1971.

Gregoire, Roger, Vocational Education, Paris, OECD Publications, 1967.

Information Service, Ministry of Education and Sciences, Summary of the Post Primary Education Act in the Netherlands, The Hague, Government Printing Office, 1968.

Ministry of Education and Sciences, A New Approach to Education, The Hague, Government Printing Office, 1971.

Ministry of Education and Sciences, Studiemogelijkheden in het Middelbaar Beroepsonderwijs (Study Possibilities in Intermediate Vocational Education), The Hague, Government Printing Office, 1972.

Ministry of Education and Sciences, Het Ministerie van Onderwijs en Wetenschappen in de Frontlijn van de Maatschappelijke Ontwikkelingen (The Ministry of Education and Sciences in the Front Line of Social Development), The Hague, Government Printing Office, 1973.

Ministry of Education and Sciences, Hoger Beroepsonderwijs Studiemogelijkheden (Study Possibilities in Higher Vocational Education), The Hague, Government Printing Office, 1972.

Ministry of Education and Sciences, Onderwijsverslag over het Jaar 1970 (Education Report for the Year 1970), The Hague Government Printing Office, 1972.

PAMPHLETS

Pamphlets published by the Ministry of Education and Sciences at The Hague, The Netherlands, printed by the Government Printing Office:

Lager Beroepsonderwijs - Nu 4 Jaar, (Elementary Vocational Education, Presently 4 Years), 1973.

Lager Huishoud- en Nijverheidsonderwijs (Elementary Domestic Science Education), no date.

Middelbaar Huishoud- en Nijverheidsonderwijs, (Intermediate Domestic Science Education), no date.

Schakel naar de Toekomst, (Link with the Future), no date.

Technisch Onderwijs in de Elektrotechniek, (Technical Education in Electricity), 1971.

Middelbaar Economisch en Administratief Onderwijs, (Intermediate Economics and Administrative Education), 1970.

Overzicht van Opleidingen voor Middelbaar en Hoger H.N.O. en Leraressenopleidingen, (Survey of Training for Intermediate and Higher Domestic Science Education and Teacher Training), no date.

Tussen Jongeren, (Among Youths), no date.

Een Fijne Baan tussen Kinderen, (A Pleasant Job among Children), no date.

Sociale Academie, (Social Academy), 1968.

APPENDIXES

APPENDIX I

This appendix includes the original, English version of the interview schedule used by the researcher in interviews with officials of the Ministry of Education and Sciences responsible for vocational education in the Netherlands, and with vocational education inspectors of the Ministry, vocational school administrators and teachers in the Netherlands.

Since the interviews were conducted in Dutch, a translation of the interview schedule from English into Dutch was prepared. The Dutch version of the interview schedule is also included in this appendix.

A back-translation from Dutch into English, prepared and certified by the Berlitz School of Languages was obtained during the later stages of this research project. Of this back-translation into English of the interview schedule a copy is included in this appendix as well.

FACULTY OF EDUCATION
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July 5, 1973

TO WHOM IT MAY CONCERN:

This letter introduces Mr. R.W. Hartog to you. Mr. Hartog is currently enrolled as a graduate student on the Master of Education in Vocational Education Degree program offered at The University of Alberta in Edmonton, Canada.

As part of the requirement for the Master of Education Degree, Mr. Hartog is doing research on the study of vocational education in the Netherlands.

I request that you make available to Mr. Hartog non-confidential material necessary for him to complete his data collection and assist him in any way during the conduct of his study.

Thank you.

Sincerely,

J.E. Gallagher
Professor and Chairman

JEG/wc

INTERVIEW SCHEDULE

Introduction

As the letter of introduction from Dr. J. J. Gallagher, Chairman of the Department of Industrial and Vocational Education, Faculty of Education of the University of Alberta, in Edmonton, Alberta, Canada, suggests, I am a graduate student of the University of Alberta, who is working toward the degree of Master of Education. For this purpose I am to complete a thesis.

As subject of the study for my thesis I have chosen to analyse vocational education in the secondary educational system in the Netherlands since the implementation of the new Act on Post Primary Education in 1968. My thesis will have as title: "A Descriptive Analysis of Vocational Education in the Netherlands since 1968."

During this interview which you have granted me, I hope to collect some of the data required for the study. To assure accuracy in reporting and to expedite the interview, I would like to use a tape recorder.

My questions will be, for a great deal, based on the structure chart for the educational system in the Netherlands, since the implementation of the new Act in 1968, of which I have this printed copy.

Questions pertaining to the Structure of Vocational Education

1. What comprises the differences between the three levels of vocational education regarding:

INTERVIEW SCHEDULE

a. Pre-requisites for entry into each level.

b. Level of educational content of courses offered at each level.

c. The number of years it takes to complete the courses at each level.

d. Choice of occupations for which education is offered.

e. Compulsory academic courses to be taken at each level, in addition to vocational education courses.

f. Types of diplomas given after successful completion of the program of studies at each level.

2. What institutions or schools are listed under each of the three levels of vocational education.

3. How rigid is the structure of vocational education in the secondary schools:

a. Is horizontal movement possible from one level of vocational education to the next for those students who possess the necessary academic qualifications.

b. If horizontal movement among the three levels is possible, what criteria are used to permit the transfer from one level to the next level.

c. After graduation from higher vocational education, can students obtain admittance to an institute of technology, a university or to another institution of higher learning.

d. What are the criteria that are used to determine if a student is admissable to an institution of higher learning. (This question only in case the answer to c. above is affirmative.)

INTERVIEW SCHEDULE

e. Can a student transfer from one occupational field to another related field.

f. Once a student has been streamed into a particular level of vocational education for a chosen trade, are there a prescribed set of courses that must be taken.

g. Is vocational education directed toward specialization in a narrow field, or is it education for a group of related occupations.

4. The structure chart of secondary education in the Netherlands indicates that differences exist between students taking elementary vocational education as opposed to those taking intermediate or higher vocational education; e.g. there is a year of transitional education which is compulsory for all students entering secondary education. What differences are there in this year of transitional education for each level of vocational education.

5. Are students who are taking the pre-university or the general secondary education programs of studies permitted to include vocational courses in their programs for credit toward graduation. If so, what vocational options are available to these students.

6. The new Act on Secondary Education (1968) provides for the possibility of creating a new type of secondary school, by combining secondary schools of different types into "comprehensive schools." What kind of schools are meant.

7. Have any of these comprehensive schools been founded since the Act has been implemented. If so, what programs of studies are offered

INTERVIEW SCHEDULE

to students enrolled in the comprehensive schools. In your opinion, have the comprehensive schools been successful.

Questions pertaining to the Organization of Vocational Education

1. Which authority in the Netherlands decides which programs are to be offered at each of the three levels of vocational education in the secondary schools.
2. Which authority makes decisions regarding curricula and course content for vocational education programs offered at each of the three levels.
3. Which authority has the responsibility for deciding which occupations are to be taught as the vocational education offerings of a particular school.
4. Which authority has the responsibility for opening a vocational school in a selected area or city.
5. Are industry and labor asked to serve on advisory boards concerning:
   a. The establishment of a vocational school in a region or city.
   b. The type of programs of studies to be offered at vocational schools for selected occupations.
   c. Involvement in determining the level of course content for each program of studies to be offered.
6. Are industry and labor involved in making decisions regarding the aims and purposes, as well as the objectives and course content of the vocational education programs of studies offered in a school. If so, at what level does representation by industry and labor occur; at the national, provincial, regional, local, or school level.

INTERVIEW SCHEDULE

7. Do any other groups --such as the Apprenticeship Institutes-- have any influence on decision making regarding vocational education at the secondary school level.
8. Does articulation exist between vocational education in the apprenticable trades and the Apprenticeship Institutes.

Questions pertaining to Counselling and Guidance in Vocational Schools

The structure chart for secondary education in the Netherlands shows that students are streamed into either pre-university education, general secondary education, or into elementary vocational education. This streaming is done, following successful completion of the standard six years of elementary education.

1. What are the criteria that are used in streaming students completing their elementary education into the various programs of studies offered in the secondary schools.
2. Who is involved in deciding what program of study the student is to follow in secondary school.
3. Is the student involved in making this decision.
4. Is the parent or guardian consulted in making a choice in this matter.
5. After the student has been streamed into vocational education, how does the student determine the particular trade or occupation he will prepare for.

   Are interest inventories administered to determine if a student has an interested in a selected occupation.

INTERVIEW SCHEDULE

6. Are guidance counsellors employed in schools at the three levels of vocational education.

   If so, do these counsellors provide the students with guidance services.

7. Once a student has started preparing for a specific trade or occupation, can he transfer to another related trade or occupation.

   If so:

   a. What are the criteria used in permitting such a transfer.

   b. Who makes the decision whether or not the student should be permitted to transfer.

   c. Is the student involved in the discussion affecting the transfer.

8. Can a student who proves successful in one of the levels of vocational education, transfer into the next higher level. If so:

   a. What are the criteria used in permitting the transfer.

   b. Who decides whether or not the student should be permitted to transfer.

9. Are follow-up studies made of vocational education graduates by guidance personnel.

Questions pertaining to the Prestige and Position of Vocational Education relative to Academic Education in the Netherlands

1. In your opinion, how well is vocational education accepted by:

   a. People in industry.

   b. The general public.

   c. Educators, principals, teachers.

   d. Labor.

INTERVIEW SCHEDULE

2. In your opinion, what status does vocational education have with:
   a. Industry.
   b. The general public.
   c. Educators, principals, teachers.
   d. Students.
3. Is there a stigma attached to vocational education by students enrolled in general secondary education or in pre-university education, or by the general public, educators, principals or teachers.
4. Are teachers who teach vocational education considered as "second class citizens" by colleagues in general or pre-university education.
5. Are there differences between vocational teachers relative to teachers in general or pre-university education with regards to:
   a. The type of teacher education preparation they receive.
   b. The kind of status they have in the teaching profession.
   c. Their salaries as teachers.
   d. The kinds of positions they can achieve.
6. Are there differences between teachers in one level of vocational education relative to teachers in another level of vocational education, regarding:
   a. The type of teacher education preparation they receive.
   b. The kind of status they have in the teaching profession.
   c. Their salaries as teachers.
   d. The kinds of positions they can achieve.

INTERVIEW SCHEDULE

Questions pertaining to the Accountability of Vocational Education

1. Are there comparisons in existence between the yearly per-pupil costs of vocational education compared to general secondary education and pre-university education.
2. Are there prescribed teacher-pupil ratios for the three levels of vocational education.
3. Do these teacher-pupil ratios differ for each of the three levels of vocational education.
4. What are the teacher-pupil ratios for each of the three levels of vocational education.
5. Does the Government employ inspectors of vocational education.
6. Are vocational education teachers held accountable for the quality of their performance, and for the wise expenditure of funds allocated for their program.
7. In view of the rapid rate of change occurring in the world of work, what provisions are made to keep vocational education teachers abreast of these technological changes.

INTERVIEW SCHEMA

Inleiding

Zoals de inleidende brief van Dr. J. J. Gallagher, Voorzitter van het Department van "Indistrial and Vocational Education" van de Faculteit van Onderwijs van de Universiteit van Alberta in Edmonton, Alberta, Canada, aangeeft, ben ik een promoverende student van de Universiteit van Alberta, op weg tot het behalen van de graad van "Master of Education." Voor dit doel moet ik een proefschrift schrijven.

Als onderwerp voor de studie voor mijn proefschrift heb ik gekozen om het beroepsonderwijs in het Nederlandse secondaire onderwijsstelsel, na de inwektreding van de nieuwe Wet op het Voortgezet Onderwijs in 1968, te analyseren. Mijn proefschrift zal als titel hebben: "Een beschrijvende Analyse van het Beroepsonderwijs in Nederlands sinds 1968."

Gedurende dit interview dat U mij toegestaan hebt, hoop ik sommige van de gegevens te verzamelen, die voor de studie benodigd zijn. Teneinde de nauwkeurigheid van het verslaggeven te verzekeren en om het onderhoud te versnellen, zou ik een tape recorder willen gebruiken.

Mijn vragen zullen grotendeels gebaseerd zijn op het structuurschema van het onderwijsstelsel in Nederland na de inwerktreding van de nieuwe Wet in 1968, waarvan ik deze afdruk heb.

Vragen betreffende de Structuur van het Beroepsonderwijs

1. Wat zijn de verschillen tussen de drie niveaus van het beroeps-

INTERVIEW-SCHEMA

onderwijs wat betreft:

a. Voor-vereisten voor toelating tot elk niveau.

b. Het peil van de leerstof van de vakken welke op elk niveau aangeboden worden.

c. Het aantal jaren benodigd voor het volbrengen van de cursussen op elk niveau.

d. Keuze van beroepen waarvoor onderwijs aangeboden wordt.

e. Verplichte theoretische vakken welke op elk niveau genomen moeten worden, behalve de beroepsonderwijs vakken.

2. Welke instituten of scholen worden gerekend onder elk van de drie niveaus van het beroepsonderwijs.

3. Hoe stug is de structuur van het beroepsonderwijs in de scholen van het voortgezet onderwijs:

a. Is zijdelingse beweging mogelijk van het ene niveau van het beroepsonderwijs naar het volgende voor die leerlingen die de benodigde theoretische bekwaamheden bezitten.

b. Indien zijdelingse beweging tussen de drie niveaus mogelijk is, wat zijn de criteria die gebruikt worden, om verandering van het ene niveau naar het volgende toe te staan.

c. Kunnen leerlingen, na het volbrengen van het hoger beroepsonderwijs, toelating tot een hogeschool of een universiteit of een andere instelling van het hoger wetenschappelijk onderwijs verkrijgen.

d. Wat zijn de criteria, welke gebruikt worden om te bepalen of een leerling toegelaten kan worden tot een instelling van het

INTERVIEW SCHEMA

hoger wetenschappelijk onderwijs. (Deze vraag alleen, als het antwoord op bovenstaande vraag c. bevestigend is.)

e. Kan een leerling veranderen van het ene beroep naar een ander, aanverwant beroep.

f. Indien een leerling eenmaal in een bepaald niveau van het beroepsonderwijs geplaatst is, teneinde een gekozen vak te leren, zijn er een voorgeschreven aantal leervakken die hij moet volgen.

g. Is het beroepsonderwijs gericht op specialisatie in een nauw gebied, of is het onderwijs voor een groep van aanverwante beroepen.

4. Het structuurschema van het beroepsonderwijs in Nederland geeft aan dat er verschillen bestaan tussen leerlingen die lager beroepsonderwijs volgen ten opzichte van leerlingen die middelbaar of hoger beroepsonderwijs volgen; d.w.z. er is een brugjaar hetwelk verplicht is voor alle leerlingen die het voortgezet onderwijs beginnen te volgen. Welke verschillen bestaan in dit brugjaar tussen elk van de niveaus van het beroepsonderwijs.

5. Wordt het aan leerlingen die het voorbereidend wetenschappelijk of the algemeen voorbereidend onderwijs volgen toegestaan om vakken van het beroepsonderwijs in hun programmas op te nemen, welke meetellen voor hun einddiploma. Indien dit het geval is, welke keuzen van beroepsonderwijs-vakken zijn beschikbaar voor deze leerlingen.

6. De nieuwe Wet voor het Voortgezet Onderwijs (1968) maakt het moge-

INTERVIEW SCHEMA

lijk om een nieuw soort school in het voortgezet onderwijs in het leven te roepen, door het combineren van verschillende soorten scholen tot "comprehensive" scholen. Naar Uw mening, zijn deze scholen succesvol.

Vragen betreffende de Organisatie van het Beroepsonderwijs

1. Welke bevoegdheid in Nederland beslist welke programmas aangeboden zullen worden op elk der drie niveaus van het beroepsonderwijs in de scholen voor het voortgezet onderwijs.
2. Welke bevoegdheid maakt de beslissingen betreffende leerplannen en de inhoud der vakken voor het beroepsonderwijs dat op elk der drie niveaus aangeboden wordt.
3. Welke bevoegdheid is verantwoordelijk voor de beslissing betreffende welke beroepen onderwezen zullen worden als de beroepsonderwijsvakken van een bepaalde school.
4. Welke bevoegdheid heeft de verantwoordelijkheid voor het openen van een beroepsschool in een verkozen streek of stad.
5. Worden nijverheid en werkers uitgenodigd om raadgevende organisaties te dienen, wat betreft:
   a. Het vestigen van een beroepsschool in een streek of in een stad.
   b. De soorten leerplannen die aangeboden zullen worden op een beroepsschool voor verkozen beroepen.
   c. Deelname aan het vaststellen op welk niveau van het leerplan elk studieprogramma aangeboden zal worden.

INTERVIEW SCHEMA

6. Nemen nijverheid en werkers deel aan het nemen van beslissingen betreffende de doeleinden en bedoelingen, en ook de oogmerken en inhoud van het leerplan van de beroepsonderwijs-programmas welke in een school aangeboden worden. Zo ja, op welk niveau vindt deze deelname van nijverheid en werkers plaats; op het nationale, provinciale, streek, locale, of school niveau.
7. Zijn er andere groepen --zoals het leerlingwezen-- welke enige invloed hebben op het nemen van beslissingen betreffende het beroepsonderwijs op het niveau van het secondaire onderwijs.
8. Bestaat er aansluiting tussen het beroepsonderwijs in die vakken die in het leerlingwezen voorkomen, en het leerlingwezen zelf.

Vragen betreffende Raadgeving en Voorlichting in Beroepsscholen

Het structuurschema voor het voortgezet onderwijs in Nederland geeft aan dat leerlingen of in het voorbereidend wetenschappelijk onderwijs, of in het algemeen voortgezet onderwijs, of in het lager beroepsonderwijs geplaatst worden, na het succesvol beeindigen van de normale zes jaren lager onderwijs.

1. Wat zijn de criteria voor het plaatsen van leerlingen die hun lagere schoolopleiding beeindigen in de verschillende studieprogrammas welke in het voortgezet onderwijs aangeboden worden.
2. Wie neemt de beslissing welk studieprogramma de leerling moet volgen in het voortgezet onderwijs.
3. Neemt de leerling deel aan het nemen van deze beslissing.
4. Wordt de ouder of voogd in beraad genomen betreffende deze kwestie.

INTERVIEW SCHEMA

5. Nadat de leerling in een niveau van het beroepsonderwijs geplaatst is, hoe bepaalt hij welk vak of beroep hij wil leren. Worden interesse-inventarissen genomen om te bepalen of een leerling geinteresseerd is in een gekozen beroep.

6. Werken er raadgevers in scholen op de drie niveaus van het beroepsonderwijs. Zo ja, geven deze raadgevers voorlichting aan de leerlingen.

7. Nadat een leerling eenmaal begonnen is met het leren voor een bepaald vak of beroep, kan hij overplaatsing krijgen naar een ander aanverwant vak of beroep. Zo ja:

   a. Wat zijn de criteria die gebruikt worden om zo'n overplaatsing toe te staan.

   b. Wie beslist, of de leerling al of niet toestemming zal krijgen voor de overplaatsing.

   c. Heeft de leerling zeggenschap in de besprekingen die de overplaatsing betreffen.

8. Kan een leerling, die succesvol blijkt te zijn op een niveau van het beroepsonderwijs, naar een hoger niveau overgeplaatst worden. Zo ja:

   a. Wat zijn de criteria die gebruikt worden om zo'n overplaatsing toe te staan.

   b. Wie beslist of aan de leerling al of niet toestemming voor de overplaatsing gegeven zal worden.

9. Worden door raadgevend personeel opvolgende studies gemaakt van leerlingen die het beroepsonderwijs volbracht hebben.

INTERVIEW SCHEMA

Vragen betreffende het Prestige van en de Plaats welke het Beroeps-Onderwijs inneemt in verhouding tot het Theoretisch Onderwijs in Nederland

1. Naar Uw mening, hoe wel wordt het beroepsonderwijs geaccepteerd door:
   a. Het bedrijfsleven.
   b. Het publiek in het algemeen.
   c. Paedagogen, schooldirecteuren, leraren.
   d. Arbeiders.
2. Naar Uw mening, hoe hoog wordt het beroepsonderwijs aangeschreven door:
   a. Het bedrijfsleven.
   b. Het publiek in het algemeen.
   c. Paedagogen, schooldirecteuren, leraren.
   d. Leerlingen.
3. Bestaat er een stigma, verbonden aan het beroepsonderwijs, naar de mening van de leerlingen van het algemeen voortgezet onderwijs of van het voorbereidend wetenschappelijk onderwijs, of naar de mening van het publiek in het algemeen, van paedagogen, schooldirecteuren, leraren.
4. Worden leraren van het beroepsonderwijs als "twede klasse burgers" beschouwd door hun collegas van het algemeen voortgezet of het voorbereidend wetenschappelijk onderwijs.
5. Bestaan er verschillen tussen leraren van het beroepsonderwijs vergeleken met leraren van het algemeen voortgezet of van het

INTERVIEW SCHEMA

voorbereidend wetenschappelijk onderwijs, betreffende:

a. De soort leraarsopleiding die zij ontvangen.

b. De rang die zij innemen in het leraarsberoep.

c. Hun leraarssalarissen.

d. De soorten posities welke zij kunnen behalen.

6. Bestaan er verschillen tussen leraren van een niveau van het beroepsonderwijs vergeleken met leraren van een ander niveau van het beroepsonderwijs, betreffende:

a. De soort leraarsopleiding welke zij ontvagen.

b. De rang die zij innemen in het leraarsberoep.

c. Hun leraarssalarissen.

d. De soorten posities welke zij kunnen behalen.

Vragen betreffende de Verantwoordelijkheid van het Beroepsonderwijs

1. Bestaan er vergelijkingen tussen de jaarlijkse kosten per leerling van het beroepsonderwijs vergeleken met het algemeen voortgezet en het voorbereidend wetenschappelijk onderwijs.

2. Bestaan er voorgeschreven verhoudingen voor het aantal leerlingen per leraar voor de drie niveaus van het beroepsonderwijs.

3. Bestaan er verschillen voor deze verhoudingen van het aantal leerlingen per leraar tussen de drie niveaus van het beroepsonderwijs.

4. Wat zijn deze verhoudingen van het aantal leerlingen per leraar voor elk van de drie niveaus van het beroepsonderwijs.

5. Heeft de Regering inspecteurs voor het beroepsonderwijs in haar dienst.

INTERVIEW SCHEMA

6. Zijn leraren van het beroepsonderwijs verantwoordelijk voor hun prestaties, en voor het wijs gebruik van de fondsen, die voor hun programmas zijn toegewezen.
7. In verband met de snelle veranderingen welke in de wereld van het werk voorkomen, welke maatregelen zijn genomen om leraren van het beroepsonderwijs in tred te houden met deze technologische veranderingen.

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INTERVIEW SCHEDULE TRANSLATED FROM THE DUTCH LANGUAGE

CERTIFIED CORRECT.

March 24, 1975.

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INTERVIEW SCHEDULE

Introduction

As the letter of introduction from Dr. J. J. Gallagher, Chairman of the Department of Industrial and Vocational Education, Faculty of Education of the University of Alberta, in Edmonton, Alberta, Canada, suggests, I am a graduate student of the University of Alberta, who is working toward the degree of Master of Education. For this purpose I am to complete a thesis.

As subject of the study for my thesis I have chosen to analyse vocational education in the secondary educational system in the Netherlands since the implementation of the new Act on Post Primary Education in 1968. My thesis will have as title: "A Descriptive Analysis of Vocational Education in the Netherlands since 1968".

During this interview which you have granted me, I hope to collect some of the date required for the study. To assure

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accuracy in reporting and to expedite the interview, I would like to use a tape recorder.

My questions will be, for a great deal, based on the structure chart for the educational system in the Netherlands, since the implementation of the new Act in 1968, of which I have this printed copy.

Questions pertaining to the Structure of Vocational Education

1. What comprises the differences between the three levels of vocational education regarding:
   a. Pre-requisites for entry into each level.
   b. Level of educational content of course offered at each level.
   c. The number of years it takes to complete the courses at each level.
   d. Choice of occupations for which education is offered.
   e. Compulsory academic courses to be taken at each level, in addition to vocational education courses.

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1. Types of diplomas given after successful completion of the program of studies at each level.
2. What institutions or schools are listed under each of the three levels of vocational education.
3. How rigid is the structure of vocational education in the secondary schools:
   a. Is horizontal movement possible from one level of vocational education to the next for those students who possess the necessary academic qualifications.
   b. If horizontal movement among the three levels is possible, what criteria are used to permit the transfer from one level to the next level.
   c. After graduation from higher vocational education, can students obtain admittance to an institute of technology, a university or to another institution of higher learning.
   d. What are the criteria that are used to determine if a student is admissable to an institution of higher learning. (This question only in case the answer to c. above is

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affirmative.)

e. Can a student transfer from one occupational field to another related field.

f. Once a student has been streamed into a particular level of vocational education for a chosen trade, are there a prescribed set of courses that must be taken.

g. Is vocational education directed toward specialization in a narrow field, or is it education for a group of related occupations.

4. The structure chart of secondary education in the Netherlands indicates that differences exist between students taking elementary vocational education as opposed to those taking intermediate or higher vocational education; e.g. there is a year of transitional education which is compulsory for all students entering secondary education. What differences are there in this year of transitional education for each level of vocational education.

5. Are students who are taking the pre-university or the general

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secondary education programs of studies permitted to include vocational courses in their programs for credit toward graduation. If so, what vocational options are available to these students.

6. The new Act on Secondary Education (1968) provides for the possibility of creating a new type of secondary school, by combining secondary schools of different types into "comprehensive schools". What kind of schools are meant.
7. Have any of these comprehensive schools been founded since the Act has been implemented. If so, what programs of studies are offered to students enrolled in the comprehensive schools. In your opinion, have the comprehensive schools been successful.

Questions pertaining to the Organization of Vocational Education

1. Which authority in the Netherlands decides which programs are to be offered at each of the three levels of vocational education in the secondary schools.

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2. Which authority makes decisions regarding curricula and course content for vocational education programs offered at each of the three levels.
3. Which authority has the responsibility for deciding which occupations are to be taught as the vocational education offerings of a particular school.
4. Which authority has the responsibility for opening a vocational school in a selected area or city.
5. Are industry and labor asked to serve on advisory boards concerning:
   a. The establishment of a vocational school in a region or city.
   b. The type of programs of studies to be offered at vocational schools for selected occupations.
   c. Involvement in determining the level of course content for each program of studies to be offered.
6. Are industry and labor involved in making decisions regarding the aims and purposes, as well as the objectives and course

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content of the vocational education programs of studies offered in a school. If so, at what level does representation by industry and labor occur; at the national, provincial, regional, local, or school level.

7. Do any other groups - such as the Apprenticeship Institutes - have any influence on decision making regarding vocational education at the secondary school level.
8. Does articulation exist between vocational education in the apprenticable trades and the Apprenticeship Institutes.

Questions pertaining to Counselling and Guidance in Vocational Schools

The structure chart for secondary education in the Netherlands shows that students are streamed into either pre-university education, general secondary education, or into elementary vocational education. This streaming is done, following successful completion of the standard six years of elementary education.

1. What are the criteria that are used in streaming students completing their elementary education into the various programs

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of studies offered in the secondary schools.

2. Who is involved in deciding what program of study the student is to follow in secondary school.

3. Is the student involved in making this decision.

4. Is the parent or guardian consulted in making a choice in this matter.

5. After the student has been streamed into vocational education, how does the student determine the particular trade or occupation he will prepare for.

   Are interest inventories administered to determine if a student has an interest in a selected occupation.

6. Are guidance counsellors employed in schools at the three levels of vocational education.

   If so, do these counsellors provide the students with guidance services.

7. Once a student has started preparing for a specific trade or occupation, can he transfer to another related trade or occupation.

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If so:

a. What are the criteria used in permitting such a transfer.

b. Who makes the decision whether or not the student should be permitted to transfer.

c. Is the student involved in the discussion affecting the transfer.

8. Can a student who proves successful in one of the levels of vocational education, transfer into the next higher level.

If so:

a. What are the criteria used in permitting the transfer.

b. Who decides whether or not the student should be permitted to transfer.

9. Are follow-up studies made of vocational education graduates by guidance personnel.

Questions pertaining to the Prestige and Position of Vocational Education relative to Academic Education in the Netherlands

1. In your opinion, how well is vocational education accepted by:

a. People in industry.

b. The general public.

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c. Educators, principals, teachers.

d. Labor.

2. In your opinion, what status does vocational education have with:

a. Industry.

b. The general public.

c. Educators, principals, teachers.

d. Students.

3. Is there a stigma attached to vocational education by students enrolled in general secondary education or in pre-university education, or by the general public, educators, principals or teachers.

4. Are teachers who teach vocational education considered as "second class citizens" by colleagues in general or pre-university education.

5. Are there differences between vocational teachers relative to teachers in general or pre-university education with regards to:

a. The type of teacher education preparation they receive.

b. The kind of status they have in the teaching profession.

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c. Their salaries as teachers.

d. The kinds of positions they can achieve.

6. Are there differences between teachers in one level of vocational education relative to teachers in another level of vocational education, regarding:

a. The type of teacher education preparation they receive.

b. The kind of status they have in the teaching profession.

c. Their salaries as teachers.

d. The kinds of positions they can achieve.

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1. Are there comparisons in existence between the yearly per-pupil costs of vocational education compared to general secondary education and pre-university education.
2. Are there prescribed teacher-pupil ratios for the three levels of vocational education.
3. Do these teacher-pupil ratios differ for each of the three levels of vocational education.

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INTERVIEW SCHEDULE Page 12

4. What are the teacher-pupil ratios for each of the three levels of vocational education.
5. Does the Government employ inspectors of vocational education.
6. Are vocational education teachers held accountable for the quality of their performance, and for the wise expenditure of funds allocated for their program.
7. In view of the rapid rate of change occurring in the world of work, what provisions are made to keep vocational education teachers abreast of these technological changes.

APPENDIX II

Included in this appendix is a listing of the various programs of studies that are available in the Intermediate Technical Schools in the Netherlands.

Programs of Studies Available in Intermediate Technical Schools

The following programs of studies are available to the students enrolled in the intermediate technical schools in the Netherlands:

aeronautical technology
automotive technology
bread baking and confectionery
building construction
civil engineering technology
clock making
electricity
electronics
engravery
fine-mechanical technology
furniture fabrication
glass instrument making
goldsmithing
graphics, aestetical
graphics, technical
home furnishing
"horeca" (training of personnel for hotels, restaurants and cafes
instrument making
jewelry making
leather tanning
lumber trade
machine carpentry
machine shoemaking
measurements and regulator technology
mechanical technology
metallurgy
milling technology
optical glass technology
optics
painting technology
photography
process technology
shipbuilding technology
silversmithing
watchmaking
window display technology

APPENDIX III

Included in this appendix is a list of the vocational schools in the Netherlands that were visited by the researcher during the summer of 1973.

Vocational Schools that were Visited in the Netherlands

During a site visit to the Netherlands in the summer of 1973 the researcher visited the following vocational education schools:

Name of the School	Location	Type School
Hogere Zeevaartschool voor Stuurlieden	Amsterdam	Higher Nautical School for Mates
Hogere Zeevaartschool voor Scheepswerktuigkundigen	Amsterdam	Higher Nautical School for Marine Engineers
Lagere Technische School Van 't Hoff Instituut	Rotterdam	Elementary Technical School
Middelbaar Technische School Van 't Hoff Instituut	Rotterdam	Intermediate Technical School
Middelbaar Technische School Bergsingel	Rotterdam	Intermediate Technical School
Hogere Technische School Delfgaauwstraat	Rotterdam	Higher Technical School
Hogere Technische School Ackerdijkstraat	Rotterdam	Higher Technical School
Haven en Vervoerschool "Jan Backx"	Rotterdam	Elementary Nautical School for Stevedores
Lagere Technische School Geerlandthoff	Rotterdam	Elementary Technical School
Lagere Nijverheidschool Geerlandthoff	Rotterdam	Elementary Retail School and Elementary Economics and Administrative School
Lagere Technische School	Weesp	Elementary Technical School
Lagere Huishoudschool	Weesp	Elementary Domestic Science School

CURRICULUM VITAE

CURRICULUM VITAE

1. Personal

Name: Robert William Hartog

Address: 408 Hilton Crescent N.E., Medicine Hat, Alberta

Birth Date: April 24, 1921

Place of Birth: Semarang, Java, Dutch East Indies

2. Academic Background

Degrees: Master of Education, The University of Alberta,
Spring 1976

Major: Vocational Education

Bachelor of Education, The University of Alberta,
Fall 1967

Major: Vocational Education; Minor: Mathematics

3. Professional Experience

Teacher, Medicine Hat School District No. 76, Medicine Hat High School, Medicine Hat, Alberta, 1974 to date.

Teacher, Calgary School Division No. 41, Springbank Junior and Senior High School, Calgary, Alberta, 1974.

Teacher, Drumheller School Division No. 72, Drumheller Composite High School, Drumheller, Alberta, 1969 - 1974.

Teacher, Head of Drafting Department, External Aid Office (CIDA), Ifunda Secondary Technical School, Ifunda, Tanzania, East Africa, 1967 - 1969.

Teacher, Drumheller School Division No. 72, Drumheller Composite High School, Drumheller, Alberta, 1964 - 1967.

4. Industrial Experience

Office and Project Engineer, Imperial Oil Limited, Edmonton Refinery, Edmonton, Alberta, 1953 - 1963.

4. Industrial Experience (Continued)

Mechanical Department Superintendent, Shell Oil Company, Marketing Division, Overseas Staff, Indonesia, 1945 - 1953.

5. Professional Organizations

The Alberta Teachers' Association